National Energy Board | Office national de l'énergie

Reasons for Decision

Provident Energy Pipeline Inc.

OH-2-2011

July 2011

Facilities Application

Canada

National Energy Board

Reasons for Decision

In the Matter of

Provident Energy Pipeline Inc.

Application dated 23 September 2010 for the Beatton River Replacement Project

OH-2-2011

July 2011

Cat No. NE22-1/2011-3E
ISBN 978-1-100-18865-2

This report is published separately in both official languages. This publication is available upon request in multiple formats.

Copies are available on request from:
The Publications Office
National Energy Board
444 Seventh Avenue S.W.
Calgary, Alberta, T2P 0X8
E-Mail: publications@neb-one.gc.ca
Fax: 403-292-5576
Phone: 403-299-3562
1-800-899-1265

For pick-up at the NEB office:
Library
Ground Floor

Printed in Canada

N° de cat. NE22-1/2011-3F
ISBN 978-1-100-97565-8

Ce rapport est publié séparément dans les deux langues officielles. On peut obtenir cette publication sur supports multiples, sur demande.

Demandes d'exemplaires :
Bureau des publications
Office national de l'énergie
444, Septième Avenue S.-O.
Calgary (Alberta) T2P 0X8
Courrier électronique : publications@neb-one.gc.ca
Fax : 403-292-5576
Téléphone : 403-299-3562
1-800-899-1265

Des exemplaires sont également disponibles à la bibliothèque de l'Office
(rez-de-chaussée)

Imprimé au Canada

Table of Contents

List of Figures ii
List of Appendices ii
Abbreviations iii
Recital and Appearances v

1. Overview 1
1.1 Section 58 Beatton River Replacement Project 3
1.2 Operations and Maintenance Activities and Related Decommissioning 3
1.3 Decommissioning of the existing Beatton River crossing 4
1.4 1997 East Extension 5

2. Comment Process 6
2.1 Background 6
2.2 List of Issues 7
2.3 Oral Comment Session 7

3. Issues Considered by the Board 8
3.1 Supply, Markets, and Economic Feasibility 8
3.2 Public Consultation and Aboriginal Engagement 9
3.2.1 Introduction 9
3.2.2 Evidence of Provident 9
3.2.3 Evidence of Other Participants 11
3.2.4 Reply Evidence of Provident 13
3.2.5 Provident's Consultation with Aboriginal People 16
3.3 Land Matters 17
3.3.1 Routing and Land Requirements 17
3.3.2 Land Acquisition 18
3.4 Environment and Socio-Economic Matters 19
3.4.1 Environmental Screening Process 20
3.4.2 Socio-Economic Matters 20
3.5 Engineering Matters – Design, Construction and Operation 21
3.5.1 Facilities Specifications and Operations 22
3.5.2 Beatton River Crossing 25
3.5.3 Integrity Management Program 26

4. Overall Conclusion and Disposition 30

List of Figures

1-1 Provident Boundary Lake Pipeline 2

List of Appendices

I NEB Order 31
II Environmental Screening Report 39

Abbreviations

AIA	Archaeological Impact Assessment
BC	British Columbia
Board, NEB	National Energy Board
Boundary Lake Pipeline	Provident's 53.1 km pipeline system from the Taylor Gas Plant in Taylor BC, to Boundary Lake, Alberta
CAEPLA	Canadian Association of Energy and Pipeline Landowner Associations
CDC	Conservation Data Centre
CEA Act	*Canadian Environmental Assessment Act*
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
Crossing Regulations	*National Energy Board Crossing Regulations, Parts 1 and 2*
CSA	Canadian Standards Association
CSA Z662	Canadian Standards Association Z662, Oil and Gas Pipeline Systems
EA	environmental assessment
EC	Environment Canada
EAZ	Emergency Awareness Zone
EPP	Environmental Protection Plan
EPZ	Emergency Planning Zone
ESR	Environmental Screening Report
Exemption Order	Exemption Order XG-XO-100-2008
FA	Federal Authority
FCN	Federal Coordination Notification
HDD	horizontal direction drill
HVP	high vapour pressure
ILMB	British Columbia Integrated Land Management Bureau
IMP	Integrity Management Program

km	kilometres
Landowners Guide	*Pipeline Regulations in Canada: A Guide to Landowners and the Public*
Letter of Commitments	protocols and commitments designed by Provident as a result of its consultation program and attached to Provident's Reply evidence filed
LMCI Stream 3	*Land Matters Consultation Initiative Stream 3 – Pipeline Abandonment – Financial Issues*, pursuant to RH-2-2008
MOE	Ministry of Environment
NEB Act	*National Energy Board Act*
NPLC	North Peace Landowner Committee
NPS	Nominal Pipe Size (in inches)
O&M Guidelines	*Regulation of Operations and Maintenance Activities on Pipelines under the National Energy Board Act and Guidance Notes* (2005)
O&M work	operations and maintenance activities
OPR-99	*Onshore Pipeline Regulations, 1999*
Project	Provident Beatton River Replacement Project, applied for pursuant to section 58 of the NEB Act.
Provident	Provident Energy Pipeline Inc.
RA	Responsible Authority
RoW	right-of-way
RMZ	Resource Management Zone
SARA	*Species at Risk Act*
Supplementary Report	Provident's Supplementary Geotechnical Report dated 28 April 2011
TWS	temporary workspace

Recital and Appearances

IN THE MATTER OF the *National Energy Board Act* (Act) and the Regulations made thereunder; and

IN THE MATTER OF an application filed with the National Energy Board on 23 September 2010 by Provident Energy Pipeline Inc. for an order pursuant to section 58 of the Act, for authorization to construct and operate 16.3 km of NPS 8 pipeline on new right-of-way, near the Beatton River, and for other relief as may be requested or the Board may consider appropriate, under file OF-Fac-Oil-P115-2010-01 01; and

IN THE MATTER OF Hearing OH-2-2011;

Heard in Fort St. John, British Columbia on 5, 6 May 2011;

BEFORE:

R.J. Harrison, Q.C.	Presiding Member
L. Mercier	Member
B. Vergette	Member

Appearances	**Participants**	**Witnesses**
L.E. Smith, Q.C.	Provident Energy Pipeline Inc.	R. Santos
B. Williams	Provident Energy Pipeline Inc.	B. Dunn
		D. McFarlane
		M. Monteith
		J. Selin
C. Hales	National Energy Board	
H. Gitersos	National Energy Board	

Oral Statement

Groups

D. Core	Canadian Association of Energy and Pipeline Landowners Associations (CAEPLA) and North Peace Landowners Committee (NPLC)
T. Skafte	NPLC

Individual Landowners

C. Andrews
F. Bueckert
B. Giesbrecht
G. Hill
F. Mertens
K. Olmstead
K. Siemens
T. Skafte
M. Wenger
F. Wenger

Chapter 1

Overview

On 23 September 2010, Provident Energy Pipelines Inc. (Provident), a wholly owned subsidiary of Provident Energy Ltd., applied to the National Energy Board (Board or NEB) under section 58 of the *National Energy Board Act* (NEB Act) for authorization to construct and operate the Beatton River Replacement Project (Project), a 16.3 km length of 219 mm outside diameter (NPS 8)[1] pipeline on new right-of-way (RoW), crossing the Beatton River approximately 20 km east of Fort St. John, British Columbia (BC).

The Project would form part of Provident's 53.1 km pipeline system that carries sweet high vapour pressure hydrocarbon products (primarily ethane and propane) from the Taylor Gas Plant in Taylor, BC to Boundary Lake, Alberta (Boundary Lake Pipeline). A portion of this pipeline (approximately 36 km) has been in service since 1961 and, according to Provident, required replacement in order to ensure continued safe and reliable operation of the system. Provident described the replacement work as:

i) Section 58 Beatton River Replacement Project: the construction of a 16.3 km segment of new pipeline across the Beatton River in new RoW;

ii) Operations and Maintenance Activities (O&M work): the replacement of 26.5 km of pipeline in the existing RoW; and

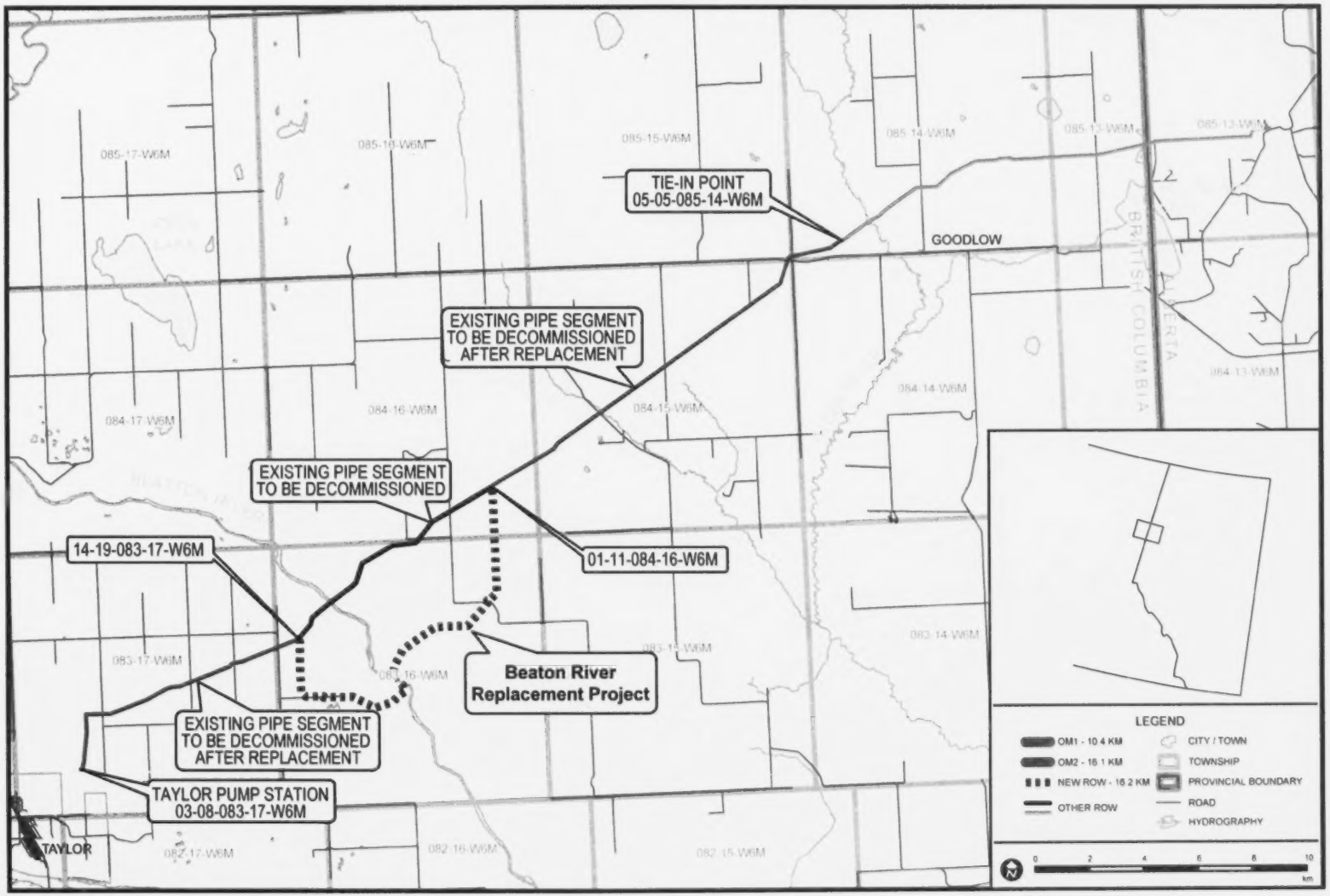
iii) Decommissioning: the decommissioning of approximately 10 km of old pipeline that will no longer be used once the new pipeline in the new RoW is operational.

This decision primarily addresses the application made by Provident under section 58 of the NEB Act for the 16.3 km of pipeline in new RoW. The Board also received a number of comments from landowners about the O&M work which Provident has undertaken on the existing RoW. Although comments relating to the O&M work do not impact the Board's decision with respect to the section 58 application, we have noted these comments and our observations in relation to the O&M work throughout this decision.

Participants provided a number of comments on issues that are outside of the Board's jurisdiction, specifically issues relating to compensation and private easement agreements. While these issues are important, they are outside of the Board's jurisdiction and therefore were not considered in our decision. Under Part V of the NEB Act, unresolved issues relating to compensation can be addressed through negotiation or arbitration by the Minister of Natural Resources.

1 Nominal Pipe Size (in inches)

Figure 1-1
Provident Boundary Lake Pipeline



1.1 Section 58 Beatton River Replacement Project

The Beatton River Replacement Project refers to a 16.3 km proposed reroute of a segment of the Boundary Lake Pipeline across the Beatton River. The Project would tie into the existing Boundary Lake Pipeline at NW-19-83-16 W6M and SE-11-84-16 W6M. The segment of pipeline to be rerouted is approximately 20 km east of Fort St. John within a primarily agricultural setting in the Peace River District of BC.

Provident applied for a new route across the river valley as a result of unstable slopes at the existing Beatton River crossing. Provident proposes crossing the Beatton River using a horizontal directional drill (HDD) method, with an isolated trenched crossing method as a contingency.

Construction would include surveying, clearing, topsoil salvage, grading, trenching, pipe stringing, bending, welding, non-destructive testing, lowering-in, backfilling, pressure testing, clean-up and reclamation. Municipal and provincial roads would be crossed using a boring method.

Provident applied for an order pursuant to section 58 of the NEB Act:

i) exempting the applied-for facilities from the provisions of sections 30 to 33 of the NEB Act; and

ii) exempting the Project from the leave to open requirements of subsection 47(1) of the NEB Act;

the effect of which would be to authorize the construction and operation of the Project.

An "exemption" under section 58 of the NEB Act, for a pipeline that is less than 40 km in length, allows a company to proceed with construction following a simplified regulatory process, with fewer filing requirements than for larger projects. The Board retains full regulatory oversight of the facilities, however, and imposes any terms or conditions it deems necessary to ensure safe operation.

Pending regulatory approval, construction is scheduled to begin in fall 2011 or winter 2011/2012. The operational life of the facilities would be approximately 40 years.

1.2 Operations and Maintenance Activities and Related Decommissioning

On 3 September 2010, Provident notified the Board of its intent to carry out pipe replacement work on the Boundary Lake Pipeline in accordance with the *Regulation of Operations and Maintenance Activities on Pipelines under the National Energy Board Act and Guidance Notes (2005)* (O&M Guidelines). Under the O&M Guidelines, companies that have previously received authorization to operate a pipeline are not required, in certain circumstances, to obtain Board approval to undertake replacement work. The Board continues to regulate these activities

through its inspection and audit programs and will hold the company to any commitments made in its Environmental Protection Plan (EPP) or through the company's filings in this proceeding.

The O&M work involved the replacement of two separate segments of pipe in BC utilizing the existing RoW (shown as OM1 and OM2 on the Overview Map at Figure 1-1). The Board has been notified that the O&M work commenced in early 2011.[2] This work is a separate undertaking from the Project.

Provident notified the Board that upon completion of the O&M work the related segments of the existing pipe would be decommissioned and left in place in accordance with Exemption Order XG-XO-100-2008 (Exemption Order). Under the Exemption Order a company may be permitted to decommission a pipeline without applying to the Board if the work meets certain criteria set out in Schedule A to that Order. The criteria include, among others, that existing service and overall pipeline system capacity remain the same, that there are no outstanding public concerns, and that the pipeline be located on existing company-owned or leased land.

The Board advised Provident on 19 April 2011 that before undertaking the decommissioning relating to the O&M work, Provident would be required to demonstrate to the Board that the decommissioning would fall under the Exemption Order. By letter dated 6 June 2011, Provident provided the Board with its analysis. On 20 June 2011, the Board responded, finding that the Exemption Order does not apply as the Board is not satisfied that all outstanding concerns have been addressed or that the proposed work would be unlikely to affect the interests of persons other than Provident.

In the circumstances, Provident will be required to file an application with the Board pursuant to section 45.1 of the *Onshore Pipeline Regulations, 1999* (OPR-99) for the decommissioning related to the O&M work. Through this application, interested parties will have the opportunity to examine details of the proposed work and the Board will have the opportunity to satisfy itself of the continued safety of the pipeline system and to assess the environmental effects and other impacts of the decommissioning. While interested parties may examine and make written comments on the application, a decommissioning application does not require a public hearing, although the Board could hold one if necessary.

1.3 Decommissioning of the existing Beatton River crossing

Provident stated that once the Project is complete and in-service, the portion of the existing Boundary Lake Pipeline that crosses the river will be decommissioned in accordance with the requirements of the OPR-99.

The Board will consider issues relating to the decommissioning of the existing Beatton River crossing in a separate Board process when that application is received. Condition 21 has been included in the attached Order, requiring Provident to file, within 30 days of commencement of operations, an application to decommission the existing pipeline crossing in accordance with section 45.1 of the OPR-99. This application will be similar to the decommissioning in relation to the O&M work, discussed above.

---

2 In filings received following the completion of the oral comment process, the Board was notified that the O&M work is complete, and the pipe is expected to begin operation in late June 2011.

1.4 1997 East Extension

In 1997 the Boundary Lake Pipeline was extended 17 km east across the provincial border from BC to Alberta, bringing the Boundary Lake Pipeline under the jurisdiction of the NEB with the issuance of Certificate OC-43. Provident stated that this 17 km segment of newer pipeline was constructed to the Canadian Standards Association (CSA) standards of that time and that it is not in need of any repairs. The replacement work proposed by Provident applies only to the original 1961 pipeline and does not include the newer pipeline segment. The Board continues to monitor all pipeline segments through the normal course of its inspection and audit programs.

Chapter 2

Comment Process

2.1 Background

Companies may, on request, meet with Board staff to discuss the Board's general regulatory requirements. These meetings, held before an application is filed, will often result in applicants filing more complete applications.[3] Based on a request by Provident, Board staff held a pre-application meeting with Provident in June of 2010, to discuss the potential filing requirements for the proposed replacement work that Provident wanted to undertake on the Boundary Lake Pipeline.

On 23 September 2010, Provident applied to the Board for authorization to construct and operate the Project.

Starting in late December 2010, the Board received a number of letters of opposition regarding the Project and the O&M work from the North Peace Landowner Committee (NPLC), the Canadian Association of Energy and Pipeline Landowner Associations (CAEPLA) and several individual landowners. Although the issues raised were primarily about Provident's consultation program, concerns were also raised about, among other things, routing, depth of cover and weed infestation.

In a series of letters between 28 December 2010 and 16 February 2011, Provident responded to the Board regarding the concerns raised, stating that all landowners along the route of the proposed Project had granted access to their lands, and that the only outstanding issue was compensation. Provident denied that there had been any improprieties by Provident or its representatives, as claimed by some landowners.

Applications under section 58 of the NEB Act for pipelines not exceeding 40 km in length, such as the Project, are typically considered by the Board through a written process. However, the Board may choose to conduct an oral process if it is warranted by the public interest or other circumstances.

In response to letters received and issues raised by NPLC, CAEPLA and individual landowners, the Board decided to initiate an oral comment process to obtain additional information and views from interested persons or groups about the Project. On 11 March 2011, Hearing Order OH-2-2011 was issued, setting out the procedures to be followed for the comment process.

---

3 As described in the *National Energy Board Pre-Application Meetings Guidance Notes* dated 4 December 2008 (Pre-Application Meeting Notes), Board staff will not direct potential applicants on how best to make their application or otherwise discuss the merits of a potential application. Rather, Board staff will provide publicly available information on the Board's general process and filing requirements. The Pre-Application Meeting Notes can be found on the Board's website at http://www.neb-one.gc.ca/clf-nsi/rpblctn/ctsndrgltn/rrggnmgpnb/prpplctnmtng/prpplctnmtng-eng.html.

On 5 April 2011, the Board hosted an information session in Fort St. John, BC. The purpose of the information session was to provide specific process information and answer questions on the upcoming oral comment session.

2.2 List of Issues

In Hearing Order OH-2-2011 the Board identified a number of issues relating to the Project that it would be interested in hearing comments on in the oral comment session, namely:

1. The potential environmental and socio-economic effects of the proposed facilities;
2. The appropriateness of the pipeline route;
3. The suitability of the design of the proposed facilities, in particular slope stability and geotechnical concerns;
4. The adequacy of landowner consultation; and
5. The terms and conditions to be included in any approval the Board may issue.

The Board issued a procedural update on 20 April 2011 to provide further information on the oral comment session. In the update, the Board confirmed that it would listen to, record and potentially respond to concerns raised about the O&M work, even though these comments would not impact the Board's primary decision on the Project.

2.3 Oral Comment Session

The oral portion of the comment process started on 5 May 2011 and ended on 6 May 2011 in Fort St. John, BC. Provident, CAEPLA, the NPLC and ten individual landowners with property along the Project route, the O&M segments, and the existing Beatton River crossing route participated in the oral comment session.

Chapter 3

Issues Considered by the Board

3.1 Supply, Markets, and Economic Feasibility

In determining whether a project will be economically feasible and used at a reasonable level over its economic life, the Board considers:

- the supply of product to be shipped that will be available for the project;
- the contracts underpinning the project;
- the adequacy of markets to receive the product; and
- the applicant's ability to finance the construction and ongoing operation and maintenance of the project.

Provident confirmed in its application that:

- there will be adequate supply to support the use of the pipeline; and
- volumes to be transported are appropriate for the applied-for facilities.

Provident estimates the cost of the Project to be approximately $7.04 million, and has indicated its ability to finance the proposed Project.

There are no third party shippers on the pipeline and the Project would have no impact on tolls or service. Provident stated in its application that not all potentially affected commercial third parties have been notified. Rather, notifications of the intent to tie in the new line will be sent to potentially affected commercial third parties when the timing for the replacement is confirmed.

Under the Board's *Land Matters Consultation Initiative Stream 3 – Pipeline Abandonment - Financial Issues*, pursuant to RH-2-2008 (LMCI Stream 3), Group 2 companies are required to prepare and file an estimate of their pipeline abandonment costs, together with the amount to be set aside for this purpose. This filing must be made with the Board no later than 30 November 2011. Group 2 companies are also required to file a proposed process and mechanism to set aside any funds required for abandonment, no later than 31 May 2013.

Provident has confirmed that it is aware of and intends to comply with the filing requirements under LMCI Stream 3.

Views of the Board

We are satisfied with Provident's assessment that adequate supply, markets and contractual commitments exist to support the Project and that Provident will be able to finance the Project.

We have determined that the applied-for facilities are necessary, that they will be used at a reasonable level over their economic life, and that the Project is economically feasible.

We acknowledge that Provident is aware of, and has undertaken to comply with the Board's filing requirements and deadlines for Group 2 companies, under LMCI Stream 3.

3.2 Public Consultation and Aboriginal Engagement

3.2.1 Introduction

The Board's expectations around public consultation are primarily set out in the Board's Filing Manual, O&M Guidelines and in the *Board's Draft Expectations – Public Involvement Program.*

These expectations are based on the principle that people who may be affected by a regulatory decision, or who have a stake in the outcome, should be given the opportunity to provide relevant information and views to the decision maker before the decision is made.

In order to achieve this objective, the Board expects companies to develop and implement a consultation program that provides interested people and groups with clear information early in the process, to address concerns up front, to incorporate relevant feedback into the design of a proposed project and to provide information to stakeholders on how and when to contact the Board directly with any concerns.

3.2.2 Evidence of Provident

Public Consultation Program – Design

Provident stated that its consultation program was based on building positive relationships with all stakeholders, including the communities in which it works. Provident acknowledged that, while the regulator grants approvals, all stakeholders are key to the success of the process. As such, Provident will continue to encourage ongoing open, two-way communication throughout the life of the Project.

Provident's consultation program for the Project included a process to plan, implement, track and document all stakeholder involvement, and to facilitate the co-ordination and integration of all stakeholder activities. The applicant stated that this outline was meant to ensure the Board's regulatory requirements and guidelines for consultation were met or exceeded.

Public Consultation Program – Implementation

In May 2010 Mr. Ruel Santos was assigned as the Project Manager for the Project and the consultation program was implemented very shortly thereafter. Mr. Santos stated that he was, "in a way", responsible for the consultation program for the Project and the O&M work. The Board was not provided with a clear statement of who at Provident had ultimate responsibility

for landowner consultation or how information would be communicated upwards to the company's decision makers.

In June 2010, Mr. Brian Dunn of Roy Northern Land and Environment, the land agent hired by Provident, began contacting landowners along the route for the O&M work and the Project to explain the proposed pipeline replacement to them. We heard that Mr. Dunn and Provident representatives talked to every landowner on the line. Each landowner along the route of the O&M work and the Project was provided with, among other things, Provident's Public Information Brochure that described the work to be undertaken, and a copy of the NEB's *Pipeline Regulations in Canada: A Guide to Landowners and the Public* (Landowner Guide). At the oral comment session, we heard that Mr. Dunn and Provident did not discuss with landowners how and when they could bring any concerns directly to the Board. Rather, Provident gave landowners "the opportunity to have the book [Landowner Guide] that tells them what they can and can't do and how they can approach the NEB if they have some concerns".

Mr. Dunn provided details of the concerns received during these early consultations to Provident. Provident stated that it then made some changes to its construction plan to address the concerns raised. For example, Provident accepted a number of reroutes for the Project, including a reroute of the pipeline to avoid the property of Mr. Bennett.

By September 2010, Provident was using line lists to track consultation activities with landowners. At that time, much of the consultation revolved around getting permission to enter lands in order to conduct wildlife and vegetation surveys. Provident filed updated line lists with the Board in December 2010 and January 2011.

Also in September, at the time it filed its application, Provident informed the Board that it had finalized the best possible route for the pipeline and that no objections to this routing had been made by landowners.

On about 29 September, 2010 Provident received a letter from CAEPLA, stating that it was authorized to represent 19 landowners in terms of "all discussions, negotiations, and correspondence with respect to the proposed Beatton River Replacement Project". Mr. Dunn advised that, despite this letter, he continued to contact landowners directly because he had to deal with the landowners on site-specific issues. Provident confirmed, however, that it did not contact CAEPLA to obtain further information on the identity of the 19 landowners or the scope of the association's authority.

On 6 October 2010, Provident held a meeting with landowners to discuss outstanding issues including, among others, liability, the safety zone and depth of cover.

By letter dated 12 November 2010, CAEPLA again wrote to Provident to advise that it represented 22 potentially affected landowners along the route for both the O&M work and the Project. Attached to that letter was a series of signed authorizations from each of the represented members. These forms authorized CAEPLA to represent the individual's interests, "excepting site specific issues".

On 17 December 2010, the landowners along the route of the Project called a meeting with Provident. Provident stated that at that meeting all issues of importance to landowners, including

compensation related matters, were discussed and that all landowners impacted by the Project were in agreement that all issues relating to routing, timing and methods of construction had been addressed by Provident in the draft easement agreement or otherwise.

By letter dated 8 April 2011, CAEPLA provided Provident with the list of issues that it said landowners had not been consulted on and on which they still wished to negotiate resolution.

In April 2011, Provident filed with the Board a line list that included a list of all the commitments that Provident had agreed to with the landowners. Provident submitted that the list demonstrated that Provident had undertaken a great deal of consultation with landowners along the Project route. Provident submitted that it also showed that Provident and the landowners negotiated some matters and came to agreement on appropriate mitigation.

In terms of the outstanding issues in relation to the O&M work, Provident indicated in a letter dated 11 March 2011 that its EPP addressed many of the issues raised by landowners along that route. Provident went on to make additional commitments, including the provision of fencing and gates upon request of affected landowners.

Provident also indicated that it would, in consultation with NPLC, work to develop a generic weed management program, a protocol for integrity digs, post-construction access and operational communication for the RoW.

In its reply evidence filed with respect to the Project, Provident further provided details on a number of generic protocols and commitments it had designed, as a result of its consultation program, including:

(i) Protocol on Crossing Right-of-Way and Pipeline Coverage Information;

(ii) Protocol on Loss of Productivity of Land;

(iii) Protocol on Integrity Digs and Procedures for Accessing Private Lands during Operations;

(iv) Protocol on Weeds and Pest Management.

(collectively the Letter of Commitments)

At the oral comment session, Provident confirmed that the Letter of Commitments would apply to landowners along the route for both the O&M work and the Project. Provident further confirmed that landowners had not been consulted directly in the development of the Letter of Commitments.

3.2.3 Evidence of Other Participants

On 10 August 2010, a meeting was held between landowners affected by the Project and Provident representatives. The evidence indicates that Provident was asked to attend this meeting prepared to address three primary areas of concern to the landowners, namely scope of the Project, landowner compensation and recovery of the replaced pipe.

In early September 2010, a number of landowners on the route for both the O&M work and the Project met and agreed to have the NPLC negotiate together, under the umbrella of CAEPLA. On 29 September 2010, Mr. Core of CAEPLA sent a letter to Provident informing them of the formation of the committee and providing contact information.

Almost all of the landowners who contacted the Board in writing or spoke at the oral comment session were members of NPLC/CAEPLA. We heard various reasons why different landowners joined these groups including those summarized below.

Many landowners along the route for both the Project and O&M work advised that they felt ill-equipped to represent themselves because they were unfamiliar with pipeline projects, with contract negotiations and with the regulatory process. An example of the messages we heard was from Ms. Christeena Andrews, a landowner on one of the O&M segments, who told us that she didn't know enough about pipeline construction and landowners' rights regarding pipelines. Ms. Andrews explained that she didn't know what questions to ask to protect her land. We were told that she joined NPLC/ CAEPLA to make sure she, her children and her land would be protected.

Mr. Kevin Olmstead, a landowner along the Project route, expressed a number of concerns about the way in which the consultation program had been implemented. Mr. Olmstead said that "we feel that we need to get together as a group ...on the section 58 to negotiate the whole agreement." Mr. Olmstead also expressed the view that "we don't want to be in the same situation down the road that the people on the original easement are in today."

Mr. Brad Giesbrecht, a landowner on one of the O&M segments, described his views on the situation faced by landowners on the original easement, which were that the landowners had no rights over their land and Provident had all the rights. In Mr. Giesbrecht's words, "there was this huge machine coming … to do the work regardless … I'm going to have to pay for the installation if I do something… we're just a family here that happens to have land where the pipeline runs and we're getting threatened." Another landowner along one of the the O&M segments, Mr. Gordon Hill provided his view on issues that have arisen without proper consultation: "I've heard several times, [Provident has] corrected it after the mistake is made. The mistake leads to the correction. Well who pays for the correction; it's always at a landowner's place…"

Mr. Core of CAEPLA told us that Provident never contacted CAEPLA to confirm CAEPLA's role and interest in the Project after Provident received CAEPLA's letter of 29 September 2010.

At the oral comment session, Mr. Olmstead stated that Provident had rejected his final reroute request without first consulting, or even discussing the request with him. Mr. Olmstead questioned Provident`s evidence that they had spoken to Mr. Olmstead's son about the final route, as his son had been out of town, in Alaska. In addition, Mr. Olmstead pointed out that, although he was also out of town, he was available by email, fax and phone and could have been contacted about the final re-route request on his property.

At the oral comment session in May 2011, landowners indicated that they wish to continue group discussions with Provident on all outstanding issues. Mr. Olmstead told Provident, "Give myself

and the other landowners that right. We'll all come to the table. We'll all negotiate in good faith. I didn't ask for veto power. I asked for the opportunity to negotiate. We never had it."

Mr. Thor Skafte on the O&M segment said, "I still believe that addressing the concerns of the landowners, of my concerns, can be achieved but that can only be achieved [if Provident will] ... come and meet with CAEPLA, and the group as a whole, to address all of the landowners' concerns."

3.2.4 Reply Evidence of Provident

Going forward, Provident explained that it has an ongoing community relations program with landowners. Any future construction-related issues that are raised during the operations phase will be addressed by Provident. In response to questions from Board counsel, Provident agreed that it would be willing to set up a landowner and public stakeholder committee to deal with all matters relating to the Provident pipeline. Provident's counsel agreed that it made good sense to have this type of a forum in which to air issues relating to construction, operations and maintenance, decommissioning, and whatever else may come up through the life of the pipeline.

Views of the Board

It would appear that Provident understands the Board's expectations for consultation. Provident's documented consultation program for the Project that was filed with the application outlines a sound approach that meets the expectations set out in the Board's Filing Manual. However, Provident did not fully *implement* such a program.

We acknowledge that Provident made some adjustments to its project design and made commitments to some landowners to address issues raised. As well, we understand that a number of landowners on both the Project route and the O&M segments have reached an agreement with Provident. However, where difficult matters arose, Provident largely ignored landowner requests to deal with their representatives, it avoided consultation with interested groups such as CAEPLA and NPLC, and it did not appear to expressly inform landowners about their right to raise concerns directly with the Board. Rather Provident seems to have relied on the Board's Landowner Guide to provide process information to individual landowners. In terms of communicating process information, we are of the view that an applicant should provide clear details on when and how interested parties can participate in a proceeding. It is not sufficient to simply provide parties with a copy of a general Board-generated document, and expect stakeholders to determine the details of the project-specific process on their own.

We heard many comments from interested participants about Provident's apparent unwillingness to speak directly with CAEPLA. The Board expects companies to consult with all individuals or groups that self-identify as having an interest in a proposed project. CAEPLA initially

provided that notification in late September 2010. As such, it was incumbent on Provident to consult with CAEPLA after that time, as a potentially interested party, to determine CAEPLA's interest and any relevant concerns it had with respect to the proposed Project.

Provident stated that it believed that the letter from CAEPLA did not authorize CAEPLA to represent landowners on site-specific matters and that all of the matters it was talking to landowners about were "site specific". Mr. Dunn and Mr. Santos further advised that, although they would have worked with a landowner representative, they were unclear who to contact. Based on the evidence before us, we cannot accept this. The letter sent from CAEPLA in April 2010 set out a number of generic issues, which landowners were interested in negotiating. As well, Provident has made a number of commitments to landowners on a generic basis, including the Letter of Commitments. The evidence further shows that a number of landowners repeatedly explained to Provident that they wanted Provident to contact NPLC and CAEPLA to discuss issues.

We are of the view that the letter of authorization and CAEPLA/NPLC's proposed approach to negotiation could have been clearer. Mr. Core provided this clarity at the oral comment session when he explained his understanding of "site specific" issues, namely, that CAEPLA and NPLC would negotiate common issues, and that site-specific issues are those that remain after the generic agreement is developed. However, we do not accept that the absence of clarification was a complete excuse for Provident in this case. The onus was on Provident to respond to requests for representation, and to be proactive in seeking clarification where such requests were not clear. Provident failed to do so, choosing rather not to contact CAEPLA/NPLC or respond meaningfully to the request.

We also heard from Mr. Santos that he did not respond to CAEPLA's September 2010 letter because he had not been given direction to do so. The evidence was unclear on who was giving direction to Mr. Santos, or whether there were any clear lines of authority, communication and accountability within Provident with respect to landowner consultation. We are of the view that a meaningful consultation program cannot be successfully implemented without these clear organizational structures and processes in place. As such, we have attached, as condition 4, a requirement that Provident provide the name of an accountable officer who is responsible for and authorized to negotiate with stakeholders on outstanding and future issues.

We heard from landowners on the O&M segments of the pipeline that they felt pressured by Provident's land agent to go along with the proposed replacement work. We also heard that some landowners along the Project route similarly felt pressured and that their concerns were not sufficiently addressed. Provident must ensure that its contractors and consultants,

including land agents, have appropriate oversight and training. We see land agents and other contractors as the company's front line representatives. It is the company's responsibility to make sure that its representatives are respectful and professional in their dealings with landowners and other interested stakeholders. In this case, it was ultimately Provident's responsibility to ensure its Consultation Program was properly implemented by its employees and consultants; any shortcoming rests squarely with Provident.

At the oral comment session Mr. Selin, on behalf of Provident, stated that he could think of nothing more that Provident could have done in terms of its consultation program. In his view, "I think that they've done a good job." We do not share that view.

Based on the evidence as a whole, we are of the view that Provident's efforts to implement its documented consultation program were inadequate. We remind Provident that failing to undertake an effective consultation program that meets the Board's requirements may result in an application being denied. This could happen where the lack of appropriate consultation resulted in the Board not having the information it needed to make an informed decision in the public interest. In this case, however, we have given much weight to the evidence on the record of the importance of replacing the pipeline. Provident as well as various landowners agreed that the pipeline should be replaced; these views were supported by the technical evidence filed.

We encourage Provident to respect affected individuals' choice of negotiating forum or agent. A number of landowners expressed the view that, as individuals unfamiliar with the regulatory process, they wanted to meet with Provident as a group to address common issues. This would, in their view, provide a forum to pool resources and knowledge and facilitate less intimidating and more informed communications. In our view, Provident's continued reluctance to negotiate through CAEPLA/NPLC was contrary to the goals and policies underpinning Provident's consultation program, to "build positive relationships" and proceed in a respectful manner.

We note that the landowners and groups with outstanding issues remain ready and willing to sit down and talk to Provident's representatives about their concerns. Provident agrees with this approach, in lieu of proceeding immediately to a formal mediation or arbitration process. All parties have expressed a desire to find a way to move forward in a collaborative manner. We are mindful of the time and effort it will take to establish a relationship of trust that will allow Provident to operate its facilities into the future.

To facilitate the development of this relationship of trust, we have included condition 4 in the attached Order, requiring Provident to come to the Board for approval of its consultation program, before it can start construction. The condition specifically requires Provident to invite all interested landowners to participate in the creation of a Community Consultation Committee. The Committee will be able to sit down and work out outstanding issues, as well as those that may arise in the future.

We recognize that the process of rebuilding trust with the community will require a consistent, long-term, consolidated effort by all parties. The Board will monitor progress. To this end, we have included condition 5 in the attached Order requiring Provident to inform the Board about Committee meetings before they occur and to report on the outcomes of each meeting.

Further, as concerns will arise from time to time, we have included condition 7 requiring Provident to maintain landowner complaint records that must be filed with the Board, on request.

3.2.5 Provident's Consultation with Aboriginal People

Program Design and Implementation

Provident's Aboriginal Consultation Program was designed to identify, with respect to the Project:

- all registered and non-registered interests (trap-lines, and leases registered to Aboriginal Peoples);
- specific or distinct needs of potentially affected Aboriginal groups (including cultural preferences, established or negotiated protocols, or linguistic needs);
- the location of Indian Reserve lands, Métis Settlement and asserted Traditional Territories;
- existing concerns or sensitive issues that may be exacerbated by the Project; and
- any other relevant factors.

The Program design included consultation with groups by various means, including face-to-face meetings, telephone calls, emails, and the transmission of fax documentation.

Provident identified ten Aboriginal groups with a potential interest in the Project: Blueberry River First Nation, Doig River First Nation, Halfway River First Nation, Kelly Lake Cree Nation, Kelly Lake First Nation, Kelly Lake Métis Settlement Society, McLeod Lake Indian Band, North East Métis Association, Saulteau First Nations and West Moberly First Nation.

In June 2010, Provident sent project information packages to the ten potentially affected Aboriginal groups. Since that time, Provident has undertaken consultation by a variety of means as set out in its program design and detailed in information tracking sheets filed on the record.

Provident has indicated that any concerns raised by potentially affected Aboriginal groups have been fully addressed.

Provident stated that if it becomes aware of any concerns from Aboriginal groups it will work with those groups to address the issues and, if required, develop and implement appropriate mitigation measures.

Views of the Board

We find that the design and implementation of Provident's Aboriginal Consultation Program is appropriate for the Project as it provided potentially affected groups with an adequate opportunity to have their concerns heard and addressed.

We note that no submissions were received through the comment process from the ten Aboriginal groups that were served with a copy of the Hearing Order.

Provident is reminded that the Board expects ongoing consultation with Aboriginal groups throughout the life of the Project.

3.3 Land Matters

The Board requires applicants to file a description of and rationale for the permanent and temporary lands needed for a project, in order to assess the extent to which new lands may be required or otherwise affected by the proposed project.

The Board also requires a description of the land acquisition process and the status of that process. This provides the Board with information regarding the company's planned timing of acquisition. Finally, applicants are required to provide the Board with a copy of the notice provided to landowners pursuant to subsection 87(1) of the NEB Act as well as a copy of the proposed form of the land acquisition agreement.

3.3.1 Routing and Land Requirements

Eighty-eight percent of the Project route is located on freehold land. There are eleven freehold landowners and one occupant. The remaining 12% is located on Crown land split into provincial range tenure (3.1%), a provincial agricultural lease (7.4%) and federal land (1.5%) which is the actual Beatton River crossing.

The Project will be constructed entirely on new lands. To accommodate the construction of the Project, a permanent ten metre wide RoW and an additional ten to fifteen metres of temporary work space will be required. Locations and dimensions of temporary work spaces are indicated on the route property sketches supplied in the application. Additional working space will also be required at road and water course crossings. There is one block valve facility required.

Provident advised that it had accommodated a number of pipeline reroutes in response to landowner input. At the time of the oral comment session, one request for a reroute remained outstanding, that of Mr. Olmstead.

Mr. Olmstead raised concerns about the pipeline traversing his land diagonally to the crest of the river bank. He had requested that the route be moved from an area on his property that would otherwise be suitable for future building.

Provident indicated that it is unable to reroute this portion "...as it would require the pipeline to closely parallel the crest of the valley slope which is contrary to good pipeline practices."

Provident's decision that it could not reroute the pipeline had not been communicated to Mr. Olmstead prior to the oral comment session. One of Provident's consultants stated that the route chosen remained the best possible route; although Provident would discuss the reroute with Mr. Olmstead, there would be no further consideration of an alternate.

Views of the Board

Based on the evidence filed, we are satisfied that Provident has undertaken sufficient analysis and that its approach to selecting the route of the proposed Project was reasonable.

In terms of the concerns raised by Mr. Olmstead with respect to consultation, we note that Provident has made a number of reroutes of the pipeline to accommodate landowner requests. We remain concerned, however, about the lack of consultation or provision of timely information to Mr. Olmstead regarding his outstanding request for a reroute.

Looking forward, the Board expects Provident to communicate early and comprehensively with all potentially affected people and groups, so that all stakeholders understand the basis for the decisions that affect them and are given an adequate opportunity to influence those decisions.

3.3.2 Land Acquisition

For the freehold sections of the Project, Provident will need to enter into right-of-way agreements for the underground structure (the pipeline) and surface lease agreements for the above ground structures (riser sites and valve sites). Section 87 notices have been served on the freehold landowners and the occupant on the Project route. Provident advised that it is in the process of acquiring the RoW and surface lease agreements from the freehold owners.

An application for the acquisition of the Crown land portions of the Project was submitted to the British Columbia Integrated Land Management Bureau (ILMB) on 23 August 2010. The ILMB provides the land permits for the new RoW and temporary working space. Section 87 notices have also been submitted to ILMB, BC Ministry of Forestry, Ministry of Environment and to the Ministry of Tourism, Culture and the Arts.

Provident filed sample copies of its form of section 87(1) notice as well as its land acquisition agreement. Provident's land acquisition will comply with the provisions and regulations, including section 87 of the NEB Act. Along with the section 87 notice, landowners received a detailed route sketch for each of their particular properties and a copy of the NEB brochure *"A Proposed Pipeline or Power Line Project: What you need to know"*, a copy of *"Pipeline Regulation in Canada: A Guide for Landowners and the Public"* and a public information brochure for the Beatton River Replacement Project created by Provident Energy Ltd.

Views of the Board

We have considered Provident's land acquisition approach for the Project and find it to be reasonable, in light of the minimum legal requirements. We are satisfied with Provident's commitment to comply with the land acquisition requirements of the NEB Act.

While we are satisfied that Provident has met the legal requirements of the NEB Act, we also note the comments received about the shortcomings in Provident's approach to landowner relations through its land acquisition process. These comments and our views on Provident's approach to landowner relations are summarized in the section on Consultation at 3.2, above.

We encourage Provident to work through the Community Consultation Committee (conditions 4 and 5) and otherwise to facilitate open and respectful discussions with affected landowners in the future. The Board expects that through this dialogue Provident and affected landowners will be able to find mutually acceptable solutions to issues that arise throughout the lifecycle of the Project.

3.4 Environment and Socio-Economic Matters

The Board considers environmental and socio-economic matters under both the CEA Act and the NEB Act. The Board expects applicants to identify the effects a project may have on bio-physical and socio-economic elements, identify mitigation measures it will implement to reduce those effects, and assess the significance of any residual effects once the mitigation measures have been applied. Applicants are expected to identify and consider the impacts a project may have on socio-economic conditions and consider mitigation of negative impacts and the enhancement of project benefits.

During the comment process, we heard concerns from participants on several issues relating to the Project and/or the O&M work, including:

- weed control;
- soil management and reclamation;
- crop loss and property damage;
- reclamation of steep slopes;

- water source protection;
- wet soil shutdown;
- shelterbelt restoration; and
- species at risk, migratory birds, wetlands and vegetation.

These issues relating to the Project are addressed in the attached Environmental Screening Report (ESR). We have also made a note of any issues relating to the O&M work directly within section 3.4.2 of this decision.

3.4.1 Environmental Screening Process

The application for the Project, filed pursuant to section 58 of the NEB Act, triggers the requirement for an environmental assessment (EA) under the CEA Act. On 8 October 2010, the Board issued a Federal Coordination Notification letter pursuant to the CEA Act *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* to identify the potential involvement of federal departments in the EA process.

The Board issued a draft ESR on 2 June 2011 for an eight day public comment period. The Board received comments from Mr. Ken Seimens and Mr. Fern Mertens on the 10 June 2011, regarding ESR Section 8.5, recommendations B and G, and landowner notification in the event of Project issues. Provident subsequently filed its comments on 17 June 2011.

The ESR, attached to these Reasons for Decision, reflects parties' comments and the Board's assessment of the bio-physical and socio-economic effects of the Project, as well as the proposed mitigation measures. The ESR also includes proposed conditions to be included in any regulatory approval issued by the Board.

3.4.2 Socio-Economic Matters

The Board expects applicants to identify and consider the impacts that projects may have on socio-economic conditions including the mitigation of negative impacts and the enhancement of project benefits.

As noted above, potential socio-economic effects covered by the CEA Act are included in the ESR. The CEA Act considers indirect socio-economic effects caused by a change to the environment as a result of the Project. Direct socio-economic effects caused by the existence of the Project are assessed under the NEB Act.

In terms of the O&M work, Provident also filed an EPP, describing the environmental protection measures to be followed by Provident and its contractors to mitigate potential environmental impacts. The EPP contained, among other things, a program to address weed control through the construction and operation phase of the O&M work.

Provident further acknowledged, through the oral comment session, that the Letter of Commitments filed in reply evidence for the Project would apply to the O&M work.

Views of the Board

Some of the landowners at the oral comment session raised issues about direct socio-economic effects caused by the depth of cover of the pipe, the safety zone and routing. The first two issues are discussed in the engineering section of these Reasons. Issues related to routing are discussed in the Land Matters section.

Several landowners also raised concerns with respect to soil management and reclamation and weed management and control. In terms of the Project, these issues are addressed in greater depth within the ESR. We also acknowledge Provident's commitments on these and other environmental and socio-economic matters, made to landowners along both the Project route and the O&M work within the Letter of Commitments, as well as the EPP filed for the Project and the O&M work.

We remind Provident that commitments made in its application, in subsequent filings and throughout the comment process are binding on it. Condition 3 is included in the attached Order requiring Provident to construct and operate the Project in accordance with, among other things, the application and any commitments made throughout the comment process.

The Order also includes condition 6, which requires Provident to develop a commitments list, to be filed with the Board and available to the public on Provident's website.

Landowners and other stakeholders can write to the Board regarding any issues that may arise with respect to any of the commitments made by Provident. The Board will address these issues at that time.

In light of the commitments made by Provident and the conditions included in the Order, we find that the potential socio-economic effects of the Project have been adequately addressed.

3.5 Engineering Matters – Design, Construction and Operation

The Board uses a risk-based approach to promote the safety and security of NEB-regulated facilities and associated activities. This approach starts at the application stage and continues through the lifecycle of the Project. At the application stage, the Board assesses, at a conceptual level, whether or not the facilities are appropriately designed for the product being transported, the range of operating conditions, and the human and natural environment where the facilities would be located. Specific considerations include the applicant's approach to engineering design, integrity management, security, health and safety.

When a company designs, constructs, operates, or abandons a pipeline, it must do so in accordance with the OPR-99, the commitments made during the hearing or comment process and

the conditions attached to any approvals granted. The OPR-99 references various engineering codes and standards including the CSA Z662 Oil and Gas Pipeline Systems (CSA Z662). The company is responsible for ensuring that the design, specifications, programs, manuals, procedures, measures and plans developed and implemented by the applicant are in accordance with the OPR-99.

Provident submitted that the Project would be designed, constructed, maintained, and operated in accordance with the OPR-99, CSA Z662, and all other applicable acts, codes and regulations.

Views of the Board

An applicant's final design and construction specifications, as well as operational practices, must address safety considerations to the Board's satisfaction. To facilitate the ongoing review by the NEB of Provident's safety plans and performance, we have included conditions 12, 13, 15 and 18 in the attached Order requiring Provident to file certain manuals including the field joining program, the construction safety manual, and the pressure testing manual, as well as regular construction progress reports.

Also, under condition 2 we require that the Project design, construction and operation comply with the applicable versions of the OPR-99 and CSA Z662. With the inclusion of these conditions in the Order, we are satisfied that the Project will be constructed using modern design, manufacturing, and coating practices.

3.5.1 Facilities Specifications and Operations

Pipe Specifications

Provident indicated that the Project would have a maximum operating pressure of 8275 kPa. The Project would be constructed of Grade 359 pipe with a 219.1 mm outside diameter (NPS 8) and wall thicknesses of 4.8 mm and 5.6 mm. Provident submitted a wall thickness analysis in order to demonstrate that it had selected pipe thicker than is required by CSA Z662. Heavier-walled pipe would be used in the Beatton River crossing, where extra loading is expected. Provident indicated that the extra wall thickness would "assist in minimizing pull stresses" when the pipe is pulled through the HDD hole bored under the river.

Views of the Board

We are satisfied that the planned wall thicknesses exceeds the requirements set out in the applicable standards, and are sufficient to withstand the loads expected during installation and operation.

Emergency Preparedness and Response

Provident stated that it has developed a single Emergency Response Plan (ERP) for its entire Liquids Gathering System, which includes the Boundary Lake Pipeline. Provident filed portions of the ERP pertaining to the Boundary Lake Pipeline on the record, including high-level emergency assessment criteria and action plans, as well as maps showing the Emergency Planning Zone (EPZ) and Emergency Awareness Zone (EAZ).

Franz and Maya Wenger indicated that, due to the location of their residence, the slope of the land, and the number of roads accessible from their property, their options for escape in the event of a pipeline emergency would be limited. Further, they identified one road in particular that can be impassable in poor weather such as snow or rain.

Provident committed to updating the ERP should the Project be approved and to consulting with landowners along the proposed route when updating the ERP.

Views of the Board

We note that any emergency is inherently unpredictable and, as such, an applicant's emergency response plan must be both comprehensive and flexible. It must take into account variables including incident location, weather conditions, notification of the public, and many others.

We expect Provident to honour its commitment to consult with landowners along the entire Boundary Lake Pipeline route and within the EPZ and EAZ when developing updates to its ERP. These consultation efforts should assist Provident in making the best use of the knowledge that landowners possess regarding local conditions and potential access issues.

Depth of Burial

Provident submitted, in a Letter of Commitments and elsewhere, that it will bury and maintain the pipe at a minimum depth of 1.3 metres along the route for both the Project and the O&M work. It had commissioned an engineering assessment of the impact of farming operations on a pipeline buried at this depth, and concluded that at this depth the pipe would be safe from collapse due to surface loading.

CAEPLA requested, on behalf of landowners, that the pipeline be buried at a depth of approximately 1.5 metres (5 feet) in order to accommodate modern agricultural practices. No technical data was submitted to support this request.

Views of the Board

We note that the proposed depth of cover exceeds the requirements of CSA Z662. In our view the CSA Z662 standards are sufficient to accommodate ordinary agricultural practices. When considered with the

extra wall thickness discussed above, the proposed burial depth provides an acceptable margin of safety. As part of condition 22, we will require Provident to submit its plan for monitoring the depth of cover along the entire Boundary Lake Pipeline.

Crossing Regulations and Safety Zone

Landowners expressed concerns that their normal farming operations could be negatively affected should they be required to request permission from either Provident or the Board each time they crossed the Provident RoW with agricultural equipment.

Provident provided written confirmation that landowners may, at any time, cross the proposed pipeline as part of their normal farming operations with equipment up to and including a super B train. Additionally, Provident extended specific permission to certain landowners to construct improvements on the proposed RoW, such as installing fence posts up to 1.2 metres (4 feet) deep.

Views of the Board

Regulatory requirements for work conducted near an NEB-regulated pipeline are contained in the *National Energy Board Pipeline Crossing Regulations, Parts 1 and 2* (Crossing Regulations). Part 1 applies to parties working near the pipeline and Part 2 outlines the pipeline operator's responsibilities. The Crossing Regulations and the NEB Act delineate a "safety zone," extending 30 metres to either side of the RoW. Development of the land within the safety zone is permitted and the land remains legally the property of the landowner. However, to reduce the possibility of unintentionally striking the pipeline, any excavation using powered equipment within the safety zone requires prior approval from the pipeline company. The Crossing Regulations remain an important tool in helping pipeline companies and those affected by a pipeline reduce the risk of an accident and maintain a safe environment.

Under the Crossing Regulations, pipeline companies may enter into agreements with potentially affected parties. The pipeline company may, for example, come to an agreement with landowners which outlines the conditions under which it is safe for landowners to carry out work within the safety zone or undertake certain activities.

We recognize Provident's written confirmation that landowners may cross the pipeline as part of normal farming operations, as well as the specific authorization granted for Mr. Mertens to install fence posts up to 1.2 metres. In the course of the Board's normal compliance activities such as inspections and meetings, it would recognize any other agreements made pursuant to the Crossing Regulations between Provident and landowners along the Boundary Lake Pipeline.

3.5.2 Beatton River Crossing

Route Selection, Crossing Location and Method of Construction

Provident submitted that the proposed location of the new Beatton River crossing was determined following a comprehensive engineering review to increase the long term reliability and safety of the pipeline.

The proposed route for the Project consists of:

- an upland segment on the southwest side of the Beatton River;
- an approximately 200 metre high approach slope on the southwest side of the river;
- a horizontally drilled crossing of the river in the valley bottom;
- an approximately 200 metre high approach slope on the northeast side of the river; and
- an upland segment on the northeast side of the river.

Provident submitted several geotechnical studies dating back to 1996 when a crossing close to Provident's proposed route was applied for by Novagas Clearinghouse Ltd. and subsequently approved by the Board. Provident stated that it had reviewed previous correspondence, geotechnical information and assessments completed by other pipeline companies, as well as geological information available in the public domain. Site reconnaissance and terrain assessment were carried out in the summer of 2010 which resulted in the route that is currently proposed.

In the fall of 2010 Provident initiated a two-phase geotechnical field program for the Beatton River crossing. Phase 1 included geotechnical testing to finalize, among other things, the specific design details of the proposed HDD crossing of the Beatton River and the execution plan for construction. The results of Phase 1, including an assessment of the terrain and geotechnical conditions were filed with the Board in a Geotechnical Route Evaluation Report, dated 15 December 2010.

The results of Phase 2 were summarized in Provident's Supplementary Geotechnical Report, submitted to the Board on 28 April 2011 (Supplementary Report). This report included the review and analysis of available data for the approach slopes and proposed crossing location as well as a slope stability analysis and recommendations for design and construction. Phase 2 also included the drilling of five geotechnical boreholes and the installation of slope monitoring instrumentation in each borehole on the northeast approach slope and upland segment of the proposed route.

Based on the results of its studies, Provident concluded that the northeast and southwest approach slopes are inactive at present. The Supplementary Report recommended that the upland portions of the reroute as well as the southwest and northeast approach slopes be constructed by means of conventional trenching. It concluded that pipelining across this terrain will require special construction practices to reduce the potential for the reactivation of the slopes. Provident committed to the recommendations for design and construction as set out in the Supplementary Report.

Provident did not anticipate any significant issues with the proposed HDD crossing technique and stated that only after repeated failures of that technique would it consider other alternatives. As a contingency, Provident proposed the use of an isolated crossing using the dam and pump method during low flows in winter. Provident has not, however, obtained the necessary authorizations for this contingency crossing method.

Provident submitted that all materials filed in relation to the geotechnical, slope stability and other design or technical aspects of the Project support a conclusion that the proposed route is the best possible and that the design and construction of the line would be sufficiently robust to allow the pipe to operate in a safe and reliable manner under foreseeable conditions.

No concerns were expressed by interested participants with respect to the proposed design, construction and monitoring of the approach slopes or the river crossing.

Concerns were expressed, however, by Mr. Siemens on behalf of himself and Mr. Mertens regarding the impact of conventional trenching of the approach slopes on recreational use. Provident advised that it would use "as low-impact techniques as we can which will involve the use of a single piece of equipment to just strip the topsoil off to do a ditch and do minimal disturbances".

Views of the Board

We accept Provident's submissions that a reroute of the Beatton River crossing is required and commend Provident for applying for the Project before the occurrence of any significant slope movement along the current route.

We note that the new route crosses old slide terrain on both approach slopes and that, although these slopes currently appear to be inactive, they may be sensitive to construction activity. As such, the Board expects Provident to adhere to the design and construction recommendations contained in the Supplementary Report and the conditions included in the attached Order.

Further, we recognize the importance of slope monitoring and the establishment of a baseline for measuring relative pipe strain as a result of ground movement. Therefore, the Board will require Provident to carry out an inertial geometry inspection within six months following the commencement of operations as described further in section 3.5.3.

3.5.3 Integrity Management Program

A management system, in general, is a framework of processes and procedures used by an organization to fulfill its objectives. It would normally contain elements such as accountabilities, procedures for tasks, and tools for auditing and continuous improvement. The primary goal of an integrity management program (IMP) is to prevent leaks and ruptures caused by in-service degradation of the facilities.

Provident indicated that its proposed integrity management activities for the Project include:

- in-line inspections to be performed at intervals based on corporate experience and quality of the product;
- excavations at sites identified by in-line inspections to investigate, evaluate, and if necessary, repair anomalies;
- regular reconnaissance of the RoW; and
- other typical ongoing activities, such as 24-hour monitoring in its Redwater Control Center, and cathodic protection to mitigate corrosion.

Provident noted that its current leak detection methods rely primarily on continuous monitoring from its Redwater Control Center and twice-monthly aerial visual surveys.

Provident submitted a risk assessment for both the existing pipeline and the proposed new Beatton River crossing which identified hazards such as the known geological instability at the existing river crossing, the properties of the high vapour pressure products carried in the line, the lack of inspection history prior to 2004, and others. Mitigation measures were also identified for both the existing line and the proposed Project and included a commitment to schedule regular in-line inspections, as well as a reference to the assessment of the proposed river crossing location as more stable.

Provident described the controls and mitigation measures it planned to use to avoid possible pipe damage due to ground movement in the area around the Beatton River. The proposed measures include:

- special construction techniques to reduce terrain disturbance;
- field reconnaissance;
- monitoring of slope inclinometers;
- regular inline inspection;
- evaluation of local conditions and monitoring results to determine whether the frequency of monitoring is appropriate; and
- other measures outlined in its integrity management program.

Provident stated that because the proposed location for the river crossing has inactive slopes, special mitigation measures to control pipe damage due to ground movement are not required. Provident committed to continuing its normal monitoring programs. Provident submitted that for these reasons the Board's initially proposed condition in this regard was not required.

Views of the Board

We require companies to develop and implement an IMP to proactively identify and mitigate any potential hazards to the pipeline and facilities. The IMP is a continuous improvement process to be used throughout the lifecycle of the pipeline. We also expect companies to monitor the

ongoing operation of the pipeline to verify the condition of the pipe and ensure it remains within defined normal parameters. This monitoring and surveillance may exist as a separate management program, or it may be integrated with the IMP.

We require further details of Provident's IMP and its Monitoring and Surveillance Program to be provided through updates to these programs. While Provident had previously implemented in-line inspections and integrity digs at a frequency typical in the industry, and has stated that there is no known history of leaks on the existing line, we note that Provident does not refer to any systematic process or management system elements in describing its integrity management activities. Further, in its submission describing the risk assessment comparing the existing pipeline to the proposed Project, Provident failed to address the factors described in section 10 of the OPR-99.

We refer Provident to the guidance notes for sections 39 and 40 of the OPR-99 for the elements that may be included in a typical Monitoring and Surveillance Program and an IMP. We will apply a risk-based compliance verification approach to ensure that Provident complies with its IMP commitments during the construction and operations phases of the Project.

We also recommend that Provident undertake an evaluation as to whether advanced leak-detection technology, such as aerial thermal imaging or laser detection, ground-based surveys, or sensors installed adjacent to the pipeline, would be appropriate.

We note that the Supplementary Report, which concludes that the slopes of the Beatton River at the proposed crossing are inactive, recommends special construction practices in order to avoid reactivating any old slide terrain. In view of the fact that Provident has committed to adopt all the design and construction recommendations in that report and to continue its normal monitoring programs, along with the requirements of condition 22 regarding monitoring and surveillance and condition 25 regarding slope remediation, the Board accepts Provident's assertion that additional mitigation measures to control pipe damage due to ground movement are not required.

In-line Inspection Program

In its response to Board information requests, Provident described the results of its in-line inspections on the existing line. Inspections were conducted in both 2004 and 2008. Metal loss anomalies were detected during the 2008 inspection, although their location relative to the long seam of the pipe could not be determined. Provident noted that although the 2008 inspection was not capable of detecting dents, the 2004 inspection did provide dent sizing and depth. Again, the location of the observed dents relative to the long seam was not available.

No information is available prior to 2003 when Provident acquired the line. The in-line inspections conducted in 2004 and 2008 did not provide information regarding cracking, stress concentrators in dents, strain-related features such as wrinkles or buckles, or stress corrosion cracking. Following the in-line inspections, Provident conducted integrity digs in 2009 and 2010 to address findings of the inspections.

During the oral comment session, Provident committed to selecting in-line inspection tools for the proposed Project that would be capable of detecting: weld seams and any associated cracks; dents, wrinkles, and buckles; stress concentrators; and relative movement of the pipe which may be due to ground movement.

Provident commented on the Board's proposed condition requiring a baseline in-line inspection to be conducted within six months of commencing operations. Provident agreed that such an inspection should be conducted as soon as practical; however, there was some concern regarding the availability of inspection tools. Provident therefore requested that the timeline be changed to 18 months following the commencement of operations.

Views of the Board

CSA Z662 outlines repair criteria for features such as dents, cracks and other anomalies. The repair criteria are related to factors such as size, type and location of anomalies relative to welds. We note that, without knowing the location of the long seam weld, Provident has been unable to determine the criticality of some of the anomalies identified in its past in-line inspections. Provident was also unable to detect other types of anomalies given the selected technology.

We recognize Provident's commitment to use in-line inspection tools on the proposed Project which will be capable of detecting a wider range of features. We therefore require further details of Provident's in-line inspection program, as well as the results of the first inspection. Provident should consider selecting tools for subsequent inspection runs which can detect at least the same, if not more types of features, in order to provide information about the growth or changes of any anomalies.

In considering Provident's comments regarding the timing of the baseline in-line inspection, we have included condition 23 in the attached Order which requires Provident to perform an initial geometry or other survey capable to detection relative pipe movement within the first six months and subsequent survey(s) to detect and size defects within twelve months following commencement of operation.

Chapter 4

Overall Conclusion and Disposition

In reaching our determination under section 58 of the NEB Act on Provident's application to construct and operate the Project, we have carefully considered the evidence and submissions made by all participants to the OH-2-2011 proceeding.

Based on the evidence presented, we are satisfied that the Project is in the public convenience and necessity and should be exempted from paragraph 30(1)(a), subsection 30(2), and section 31, 32 and 33 of the NEB Act.

The Board does not grant an exemption under section 47 of the NEB Act. In the circumstances, Provident is directed to apply for leave to open in accordance with section 47, prior to commencing operation.

The foregoing constitutes our Reasons for Decision in this matter. Having made our decision under the CEA Act, we approve Provident's application, subject to the conditions set out in the attached Order.

R. J. Harrison, Q.C.
Presiding Member

L. Mercier
Member

R. D. Vergette
Member

Calgary, Alberta
June 2011

Appendix I

NEB Order

ORDER XO-P115-04-2011

IN THE MATTER OF the *National Energy Board Act* (the NEB Act) and the regulations made thereunder; and

IN THE MATTER OF an application dated 23 September 2010 made by Provident Energy Pipeline Inc. (Provident), pursuant to section 58 of the NEB Act, filed with the National Energy Board under File OF-Fac-Oil-P115-2010-01 01.

BEFORE the Board on 23 June 2011.

WHEREAS Provident filed an application with the Board, dated 23 September 2010, to construct and operate a 16.3 km pipeline segment along Provident's Boundary Lake Pipeline (the Project);

AND WHEREAS pursuant to the *Canadian Environmental Assessment Act* (CEA Act), the Board has considered the information submitted by Provident and has performed an environmental screening of the Project;

AND WHEREAS the Board has determined, pursuant to subsection 20(1)(a) of the CEA Act, that, taking into account the implementation of Provident's proposed mitigation measures and the conditions contained herein, the Project is not likely to cause significant adverse environmental effects;

AND WHEREAS on 11 March 2011 the Board issued Hearing Order OH-2-2011, establishing a comment process, to obtain additional information and views from interested participants about the Project;

AND WHEREAS the Board has examined the application and all evidence received in the OH-2-2011 proceedings and considers it to be in the public interest to grant, in part, the relief requested;

IT IS ORDERED that, pursuant to section 58 of the Act, the applied-for Project as specified in Schedule A attached to and forming part of this Order, is exempted from the provisions of paragraph 30(1)(a), subsection 30(2), and section 31, 32 and 33 of the NEB Act, subject to the following conditions:

Unless otherwise specified in the following conditions, "commencement of construction" includes site preparation and the clearing of vegetation, ground-breaking and other forms of right-of-way (RoW) preparation that may have an effect on the environment, but does not include activities associated with normal survey operations.

Where any condition requires a filing with the Board "for approval" prior to the commencement of a specified activity, that activity shall not be commenced until the approval is issued.

General:

1. Provident shall comply with all of the conditions contained in this Order unless the Board directs otherwise.

2. Provident shall cause the approved Project to be designed, located, constructed, installed, and operated in accordance with the specifications, standards and other information referred to in its application or as otherwise agreed to during questioning or in its related submissions.

3. Provident shall implement or cause to be implemented all of the policies, practices, plans, programs, mitigation measures, recommendations and procedures for the protection of the environment included in or referred to in its application or as otherwise agreed to during questioning or in its related submissions.

Prior to construction:

4. At least 45 days prior to the commencement of construction, Provident shall file with the Board for approval the Terms of Reference for a Community Consultation Committee for the Project (Committee ToR). The Committee ToR will, at minimum:

   a) be developed in consultation with all interested landowners along the section 58 and operations and maintenance work sections, landowners within the Emergency Awareness Zone and their representatives, if any (the Affected Landowners);

   b) identify an officer of the company who will be accountable for the implementation of the plan;

   c) identify company contacts who will sit on the committee and make decisions on behalf of the company;

   d) include regular Community Consultation Meetings and information sharing with Affected Landowners;

   e) include a meeting under paragraph (d) scheduled not less than 21 day prior to the commencement of construction: and

   f) include a process for the identification and resolution of both generic and site specific issues of Affected Landowners;

5. For the first two years following submission of the Committee ToR to the Board, Provident shall:

   a) notify the Board in writing prior to each of the Community Consultation Committee Meetings of the date, time and place of the meetings;

   b) within 30 days of the meeting, file with the Board a copy of the minutes of the meeting signed by the officer of the company who is accountable for the Community Consultation Committee under the Committee ToR. The minutes shall include but not be limited to:

i. matters discussed at the meeting;

ii. a list of any outstanding landowner concerns;

iii. a description of how Provident intends to address those concerns; or

iv. justification why those concerns will not be addressed.

6. Provident shall:

a) file with the Board and post on its company website, at least 45 days prior to the commencement of construction, a table listing all commitments made by Provident during the OH-2-2011 proceedings related to the Project, conditions imposed by the Board and the deadlines associated with each; and

b) update the status of the commitments in a) on at least a monthly basis throughout the construction of the Project, and maintain the updated table on its company website.

7. Provident shall create and maintain records to track chronologically landowner complaints related to the Project. An initial landowner complaint record shall be filed with the Board 60 days after completion of construction. Thereafter records shall be maintained and provided to the Board, upon request, and shall include:

a) the date the complaint was received;

b) a detailed description of the complaint;

c) the date of resolution of the complaint; and

d) a description of how Provident resolved the complaint and if no resolution was reached, why resolution was not reached, and details of any further actions to be taken (if any).

8. Provident shall file with the Board, 30 days prior to the commencement of construction, a detailed description of the mitigation measures necessary to control potential pipe damage due to slope movement.

9. Provident shall file with the Board, at least 30 days prior to the commencement of construction, an updated project specific Environmental Protection Plan (EPP), which Provident shall implement. The EPP shall describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in Provident's application, subsequent filings, or as agreed to during questioning or in submissions during the OH-2-2011 proceeding. Construction shall not commence until Provident has received approval of its EPP from the Board.

The EPP shall address, but is not limited to, the following elements:

a) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all project phases, and activities;

b) a reclamation plan which includes a description of the condition to which the applicant intends to reclaim and maintain the RoW and temporary workspace once the construction has been completed, and a description of measureable goals for reclamation; and

c) evidence of consultation with relevant regulatory authorities on the proposed mitigation and any outstanding concerns and plans to address these.

10. Provident shall file with the Board, at least 30 days prior to the commencement of construction, the results of the supplemental wildlife survey, rare plant survey, and Archaeological Impact Assessment scheduled for summer 2011. Provident will include site-specific mitigation measures to be implemented within these reports and will update and re-issue the EPP and Environmental Alignment Sheets in order to ensure the protection of wildlife, rare plants and archaeological resources.

11. Provident shall file with the Board for approval, at least 30 days prior to commencement of construction, a detailed weed management plan. This plan shall describe Provident's immediate and long term weed monitoring and control procedure, decision criteria and accountabilities for the construction and operations phase of the Project as well as for the immediate post-construction reclamation period. The filed plan shall include evidence that it was designed in consultation with affected landowners, taking into account the unique circumstances of affected landowners.

12. Provident shall file with the Board, 14 days prior to the commencement of welding, the field joining program.

13. Provident shall file with the Board, 14 days prior to the commencement of construction, the Construction Safety Manual.

14. In the event Provident cannot avoid construction or clearing activities within restricted activity periods for non-migratory birds protected under provincial legislation, and all migratory birds (May 1 to July 31), Provident shall retain a qualified avian biologist to carry out a pre-construction survey to identify any birds and active nests in areas immediately surrounding the Project site. Provident shall also file the following with the Board within 15 days following construction or clearing activities:

a) the results of the survey;

b) the proposed mitigation plan, including monitoring, developed in consultation with the appropriate federal (Environment Canada and the Canadian Wildlife Service) and provincial government authorities, to protect any identified migratory and non-migratory birds and their nests. This plan should include any birds protected under *Species at Risk Act*; and

c) confirmation that the appropriate provincial and federal government authorities were consulted on: (i) the proposed methodology for the survey; (ii) the results from the

survey; and (iii) the mitigation and monitoring plans developed, and a description of how any outstanding concerns raised by these authorities will be resolved.

During Construction:

15. Provident shall file with the Board, on a weekly basis, in a form satisfactory to the Board, construction progress reports. The report shall include information on the activities carried out during the reporting period, any environmental, safety and security issues and non-compliances, and the measures undertaken for the resolution of each issue and non-compliance. Reports shall be filed starting with commencement of construction and shall cover the duration of construction activities.

16. In the event that any heritage resources are discovered during construction, Provident shall:

    a) cease construction;

    b) obtain the necessary clearances from the appropriate provincial authorities; and

    c) notify the Board once permission to continue has been obtained.

17. Provident shall:

    a) notify the Board in writing of any change from the proposed horizontal directional drill watercourse crossing method and the reasons for that change, prior to implementation;

    b) provide copies of all correspondence from the appropriate regulatory authorities relating to the changed crossing method; and

    c) file for approval, at least 10 days prior to implementing the changed watercourse crossing method, a description of amended reclamation and re-vegetation measures and fish and fish habitat monitoring for the affected watercourse crossings.

18. Provident shall file with the Board, 14 days prior to pressure testing, the field pressure testing program.

19. Provident shall file with the Board, at least 30 days prior to the commencement of operations, any updates to its Emergency Preparedness and Response manual(s) required as a result of the Project.

Post Construction:

20. Within 30 days following commencement of operation of the pipeline, Provident shall file with the Board confirmation, by an officer of the company, that the approved Project was completed and constructed in compliance with all applicable conditions in this Order. If compliance with any of these conditions cannot be confirmed, the officer of the company shall file with the Board details as to why compliance cannot be confirmed. The filing required by this condition

shall include a statement confirming that the signatory to the filing is an officer of the company.

21. Provident shall file a decommissioning application for the existing Beatton River crossing within 30 days following commencement of operation.

22. Within 30 days following commencement of operation of the pipeline, Provident shall file copies of the following programs:

    a) the updated Integrity Management Program pursuant to section 40 of the *Onshore Pipeline Regulations, 1999,* which shall include, but not be limited to, the processes for:

        i. hazard assessment of the Boundary Lake pipeline;

        ii. pipeline monitoring and surveys of potential releases at road crossings; and

        iii. details of the monthly pipeline cleaning (pigging); and

    b) updated Monitoring and Surveillance Program pursuant to section 39 of the *Onshore Pipeline Regulations, 1999*, which shall include, but not be limited to, the processes for:

        i. slope stability monitoring; and

        ii. depth of cover monitoring.

23. Within 30 days following commencement of operation of the pipeline, Provident shall file with the Board its In-Line Inspection (ILI) Program, including details of the baseline assessment and for continual assessment. The program shall include the type of ILI tools to be run, and the frequency in which inspections will be conducted. Baseline assessments shall be conducted as follows:

    a) an inertial geometry or other survey capable of detecting relative pipe movement within the first six months following commencement of operation;

    b) tool(s) capable of detecting and sizing defects as required by CSA Z662-07, clause 10.9, within the first twelve months following commencement of operation.

    Summaries of the baseline assessments shall be filed with the Board as soon as they are available.

24. Provident shall file with the Board, no later than 60 days following commencement of operation of the Project, an as-built drawing identifying the location of the pipeline and all new construction.

25. Provident shall file, within 60 days of the commencement of operation of the pipeline, a report that summarizes:

    a) the location of trench breakers, drainage and erosion control measures; and

    b) all of the slope stabilization techniques implemented.

26. On or before the 31 of January of each of the first, third and fifth growing seasons following the completion of the RoW reclamation and final cleanup activities, Provident shall file with the Board a Post-Construction Environmental Monitoring Report that:

a) describes the methodology used for monitoring, the criteria used for evaluating success and the results found;

b) assesses the effectiveness of the mitigation measures applied during construction against the criteria for success;

c) identifies any deviations from plans and alternate mitigation applied as approved by the Board;

d) identifies locations on a map or diagram where corrective action was taken during construction and the current status of corrective actions;

e) provides proposed measures and the schedule Provident shall implement to address any unresolved concerns.

Expiration of Order:

27. Unless the Board otherwise directs prior to 31 December 2012, this Order shall expire on 31 December 2012 unless construction in respect of the Project has commenced by that date.

NATIONAL ENERGY BOARD

Anne-Marie Erickson
Secretary of the Board

SCHEDULE A

National Energy Board Order XO-P115-04-2011

Provident Energy Pipeline Inc.
Application dated 23 September 2010
assessed pursuant to section 58 of the *National Energy Board Act*

Beatton River Replacement Project
File OF-Fac-Oil-P115-2010-01 01

Pipeline Specifications

Project Type	New construction
Location (endpoints)	From LSD 14-19-083-16 W6M to LSD 01-11-084-16 W6M
Approximate Length	16.3 km
Outside Diameter	219.1 mm
Minimum Wall Thickness	4.8 mm
Pipe Material	Steel
Pipe Material Standard	CSA Z245.1
Pipe Grade	Grade 359
External Coating Type	Dual Powder (FBE-type); Yellow Jacket
Maximum Operating Pressure	8275 kPa
Product	High vapour pressure natural gas liquids

Appendix II

Environmental Screening Report

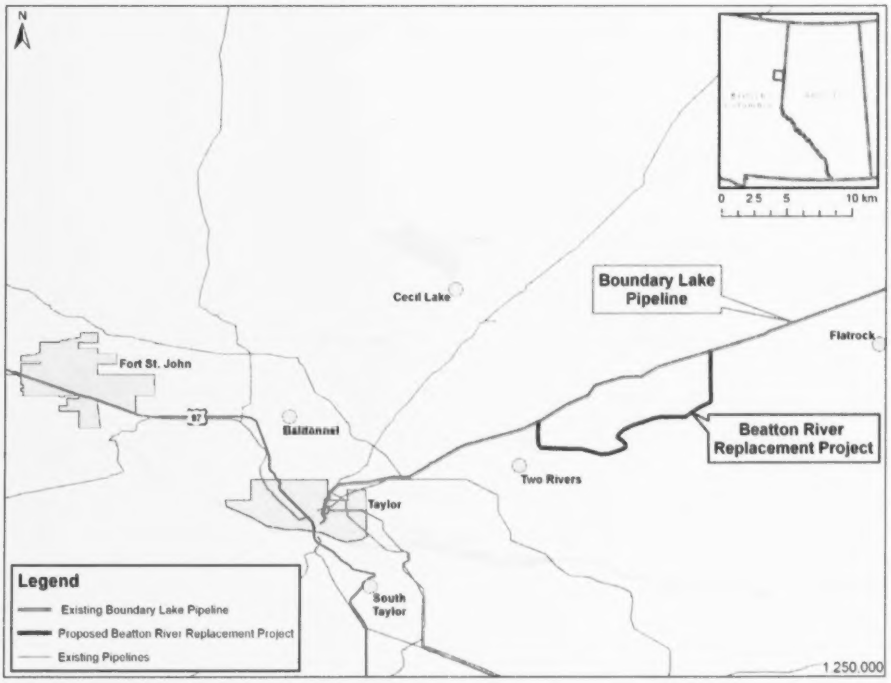
National Energy Board | Office national de l'énergie

ENVIRONMENTAL SCREENING REPORT

Pursuant to the *Canadian Environmental Assessment Act* (CEA Act)

Beatton River Replacement Project

Applicant Name:	Provident Energy Pipeline Inc.		
Application Date:	23 September 2010	**CEA Act Registration Date:**	5 October 2010
National Energy Board File Number:	OF-Fac-Oil-P115-2010-01 01	**Canadian Environmental Assessment Registry Number:**	10-01-58203
CEA Act Law List Trigger:	Section 58 of the *National Energy Board Act*	**CEA Act Determination Date:**	23 June 2011



Canada

SUMMARY

Provident Energy Pipeline Inc. (Provident) proposes to replace portions of the existing Taylor to Boundary Lake Pipeline, a 53.1 km long, 219 mm (8-inch) outside diameter pipeline currently carrying sweet high vapour pressure hydrocarbon products (ethane and propane). Provident has stated that approximately 36 km of this pipeline has been in service since 1961 and needs replacement to ensure safe and reliable operation. The majority of the pipeline replacement work will remain within the existing right-of-way on previously disturbed lands (O&M work) and is being undertaken in accordance with the *Regulation of Operations and Maintenance Activities on Pipelines Regulated under the National Energy Board Act and Guidance Notes*, dated 7 July 2005. An environmental assessment is not required under the *Canadian Environmental Assessment Act* (CEA Act) for the O&M work.

This report is an Environmental Screening Report (ESR) under the CEA Act for the proposed Provident Beatton River Replacement Project (Project). Provident has applied to the National Energy Board (Board or NEB) under subsection 58(1) of the *National Energy Board Act* (NEB Act) for authorization to construct and operate the Project. The Project involves approximately 16.3 km of pipeline within new right-of-way (RoW) near Taylor, British Columbia. The new RoW detailed in the Provident application is required for the construction of a more suitable crossing of the Beatton River.

This proposed pipeline would require a 10 m wide permanent RoW traversing 88% privately-owned lands and 12% provincial Crown-owned lands. An additional 10 m to 15 m of temporary workspace would be required along the proposed pipeline. The operational life of the facilities would be approximately 40 years. Construction is scheduled to begin in fall 2011 or winter 2011/2012 with a planned in-service date in 2012.

This ESR was prepared as part of the NEB's responsibilities under the CEA Act and incorporates information provided by the applicant, federal authorities and other interested parties. The NEB is of the view that with the implementation of Provident's environmental protection procedures and mitigation measures and the NEB's recommendations, the proposed Project is not likely to cause significant adverse environmental effects.

TABLE OF CONTENTS

1.0 INTRODUCTION 42

1.1 Project Overview 42
1.2 Rationale for the Project 42
1.3 Baseline Information and Sources 43

2.0 ENVIRONMENTAL ASSESSMENT (EA) PROCESS 43

2.1 Government Participation in the EA Coordination Process 43

3.0 SCOPE OF THE ENVIRONMENTAL ASSESSMENT 44

4.0 DESCRIPTION OF THE PROJECT 44

5.0 DESCRIPTION OF THE ENVIRONMENT 44

6.0 COMMENTS FROM THE PUBLIC 48

6.1 Project-Related Issues Raised in Comments Received by the NEB 48
6.2 Comments Received by the NEB on the Draft EA Report 48

7.0 THE NEB'S ENVIRONMENTAL ASSESSMENT METHODOLOGY 49

8.0 ENVIRONMENTAL EFFECTS ANALYSIS 49

8.1 Project - Environment Interactions 49
8.2 Potential Adverse Environmental Effects 53
8.3 Cumulative Effects Assessment 55
8.4 Follow-Up Program 55
8.5 Recommendations 55

9.0 THE NEB'S CONCLUSION 57

10.0 NEB CONTACT 58

APPENDIX 1: COMMENTS RECEIVED BY THE NEB ON THE DRAFT EA REPORT 59

1.0 INTRODUCTION

1.1 Project Overview

The application by Provident Energy Pipeline Inc. (Provident) for the Beatton River Replacement Project (Project) was filed pursuant to subsection 58(1) of the National Energy Board Act (NEB Act) which triggers the *Canadian Environmental Assessment Act* (CEA Act) *Law List Regulations*, thereby requiring the preparation of this Environmental Screening Report (ESR). The proposed Project would require approximately 16.3 km of new right of way (RoW) to cross the Beatton River.

Section 4.0 provides a detailed description of the work associated with the Project.

1.2 Rationale for the Project

Provident operates 53.1 km of 219 mm (8-inch) outside diameter pipeline that carries sweet high vapour pressure (HVP) hydrocarbon products (primarily ethane and propane) from the Taylor Gas Plant in Taylor, British Columbia (BC) to Boundary Lake in Alberta. A portion of this pipeline (approximately 36 km) has been in service since 1961 and is nearing the end of its operational life. Provident has stated that in order to ensure safe and reliable operation, Provident is replacing this portion of the pipeline.

The replacement proposed by Provident includes:

i) Operations and Maintenance Activities (O&M work): the replacement of approximately 26 km of pipeline in previously disturbed lands within the existing RoW; and

ii) Section 58 Beatton River Replacement Project: the construction of a 16.3 km section of pipeline over the Beatton River in new RoW.

An environmental assessment is not required under the CEA Act for the O&M work as no new authorization is required from the National Energy Board (Board or NEB) for this replacement work. This work commenced in early 2011 and is now near completion. The O&M work was conducted in accordance with, and must comply with the procedures outlined in the Environmental Protection Plan (EPP), filed with the Board. This EPP is similar to that which Provident submitted for the Project. The Board will continue to regulate the pipeline replaced through the O&M work through its inspection and audit programs.

This ESR addresses the potential adverse environmental affects that may be caused by the Section 58 Beatton River Replacement Project. For the Project, approximately 16.3 km of new RoW will be required for a new river crossing as a result of unstable slopes at the existing Beatton River crossing. Provident has stated that this location is preferred from a pipeline integrity and technical perspective. Provident proposes crossing the Beatton River using a horizontal directional drill (HDD) method.

1.3 Baseline Information and Sources

The analysis for this ESR is based on the information filed on the record for the Project including Provident's application and supplementary filings, responses to information requests, EPP and evidence submitted through the OH-2-2011 comment process. Filed information pertaining to the Project application can be found within 'Regulatory Documents' on the NEB's website (www.neb-one.gc.ca). For more details on how to obtain documents, please contact the Secretary of the NEB at the address specified in Section 10.0 of this report.

2.0 ENVIRONMENTAL ASSESSMENT (EA) PROCESS

The application for this Project was filed pursuant to subsection 58(1) of the NEB Act which triggers the CEA Act *Law List Regulations* thereby requiring the preparation of this ESR.

The NEB is the Federal Environment Assessment Coordinator for this Project. Transport Canada (TC) and the NEB are Responsible Authorities (RAs) for this Project and Environment Canada is a Federal Authority (FA) in possession of specialist advice.

2.1 Government Participation in the EA Coordination Process

On 8 October 2010 the NEB issued a Federal Coordination Notification (FCN) letter pursuant to section 5 of the CEA Act *Regulations Respecting the Coordination by Federal Authorities of Environmental Assessment Procedures and Requirements* to identify the potential involvement of federal departments in the EA process. The responses are summarized below:

Responsible Authorities (RAs)	**Regulatory Trigger(s)**
National Energy Board	Section 58(1) of the NEB Act which triggers the CEA Act *Law List Regulations*
Transport Canada (TC)	Section 108(4) of the NEB Act which triggers the CEA Act *Law List Regulations*

Federal Authorities (FAs) in Possession of Specialist or Expert Information or Knowledge
Environment Canada (EC)

Section 6.0 describes the issues raised.

3.0 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

In conducting the environmental screening, the NEB considered the factors set out in paragraphs 16(1)(a) through (d) of the CEA Act. The scope of the environmental assessment (EA) includes the life cycle of the Project within the Project area for those environmental elements listed in Section 8.1.

4.0 DESCRIPTION OF THE PROJECT

The proposed Project consists of approximately 16.3 km of 219 mm outside diameter pipeline. The proposed pipeline would tie into the existing Boundary Lake Pipeline at NW-19-83-16 W6M and SE-11-84-16 W6M. The total land footprint of the proposed pipeline is approximately 16.1 hectares with an additional 27.4 hectares for temporary workspace (TWS). The pipeline will transport sweet HVP hydrocarbon products (ethane and propane).

The proposed pipeline route is situated approximately 20 km east of Fort St. John within a primarily agricultural setting in the Peace River District of BC. The Project traverses 14.3 km (88%) privately-owned lands and 2.0 km (12%) Crown lands. The Project will require a new 10 m wide permanent RoW. Further, an additional 10 m to 15 m wide strip of TWS will be required at road and watercourse crossings, sidebends, and other localized sites.

Construction would include surveying, clearing, topsoil salvage, grading, trenching, pipe stringing, bending, welding, non-destructive testing, lowering-in, backfilling, pressure testing, clean-up and reclamation. Encountered municipal and provincial roads would be crossed using a boring method. The Beatton River crossing would use an HDD method. As a contingency measure, Provident will also obtain applicable permits from Transport Canada and Department of Fisheries and Oceans for an isolated trenched crossing. The operational life of the facilities would be approximately 40 years. Construction is scheduled to begin in fall 2011 or winter 2011/2012 with a planned in-service date in 2012.

Pursuant to the NEB Act, an application would be required to abandon the facility, at which time the environmental effects of the abandonment would be assessed by the NEB.

5.0 DESCRIPTION OF THE ENVIRONMENT

Physical Environment

- The proposed Project lies within the Peace River Lowland Subregion of the Great Plains Physiographic Region.
- The topography along the proposed pipeline route consists mainly of flat to gently undulating terrain but contains areas of moderate to very strong slopes (15 – 45%) within the Beatton River valley.
- Glaciolacustrine clays, lacustro-till, and till deposits comprise most of the soils encountered within the eastern and western portions of the proposed route. The dominant soils in this area consist mainly of moderately well to imperfectly drained Orthic and

Gleyed Gray Luvisols developed on fine to very fine textured, slightly stony, stratified, lacustrotill deposits. Topsoil depths on cleared portions range from 12 – 28 cm.

- The fluvial soils of the Beatton River floodplain are well drained Regosols with an average topsoil depth of 20 cm. Regosolic soils also occur on the steep valley slopes above the floodplain; these slopes have been determined to be extremely unstable.

Vegetation

- The Project route would traverse approximately 72% agricultural land, including approximately 5.8 km of improved pasture, 4.5 km of cultivated lands, 2.6 km of bush-pasture land and 1.2 km of hay land.

- The remaining lands include deciduous and mixedwood forests dominated by trembling aspen with subdominant species comprised of white spruce and balsam poplar. Grassy slopes are present along the eastern side of the Beatton River valley. Also on the eastern side of the valley, the proposed route would traverse a forest regeneration area responding to a recent forest fire. Riparian areas adjacent to the Beatton River are dominated by willow and some balsam poplar.

- During the rare plant survey, two BC Conservation Data Center (CDC) listed rare plant species, meadow arnica (S2S3) and spike oat (S2S3) were observed on the proposed RoW.

- Two provincially designated Noxious species were observed on the proposed RoW; Canada thistle and perennial sow thistle. Two regional Noxious species, summer-cypress and quackgrass, were also observed along the proposed RoW.

Water Quality and Quantity

- The Project lies within the Peace River Sub-basin.

- The proposed pipeline route would cross the Beatton River, a navigable waterbody and tributary to the Peace River.

- No publicly recorded groundwater wells or springs are located within the vicinity of the proposed pipeline route.

Fish and Fish Habitat

- The Beatton River, classified as an S1 large river (over 100 m wide and fish bearing), is the only fish-bearing watercourse crossed by the proposed pipeline route.

- Fish species captured at the proposed Beatton River crossing location during the Aquatic Assessment included flathead chub, trout-perch and longnose sucker. A review of past sampling data collected near the proposed crossing indicated the following sport fish may be present in the Project area: goldeye, mountain whitefish, walleye, burbot, northern pike and arctic grayling.

- The Beatton River contains both spring and fall spawning species; therefore the instream timing window of least risk would be July 15 to August 15. However, the instream timing window of least risk does not apply to trenchless crossing and, therefore, the proposed HDD crossing method could be constructed outside of the window.

- There are no fish species listed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) known or expected to occur within the Project area. However, Arctic grayling populations are high priority candidates for a detailed status assessment by COSEWIC.

- Four fish species listed as "vulnerable" in BC may be found within the Project area: bull trout, goldeye, northern redbelly dace and northern pearl dace.

Wetlands

- The proposed Project would be located within the Continental Mid-Boreal Wetland Region.

- The proposed pipeline route would cross two wetlands. One of the wetlands is a shrubby swamp dominated by peaked sedge and willow; the other wetland is an emergent marsh containing marsh grasses, sedge, willow and aspen.

- No Ramsar Wetlands of International Importance are located along the proposed pipeline route.

Wildlife and Wildlife Habitat

- The Project lies within the Agricultural Settlement Area and Major River Corridor Resource Management Zones (RMZ) of the Fort St. John Land and Resource Management Plan. The Agricultural Settlement Area RMZ is identified as being critical for ungulate winter range and important for migratory waterfowl. The Major River Corridor Resource RMZ are critical to many species, especially fish, moose, ungulates and many birds.

- The proposed pipeline route is located within a proposed BC Ministry of Environment (MOE) Ungulate Winter Range for elk, mule deer and moose.

- BC MOE indicates there are six sharp-tailed grouse (yellow-listed BC CDC) leks on the east side of the Beatton River, in close proximity to the Project. A review of the MOE data indicates the nearest lek is 210 m from the proposed RoW, while all other leks are located 500 m away or greater.

Wildlife Species at Risk as Listed on Schedule 1 of the Species at Risk Act (SARA)

- The following wildlife species, listed as Threatened on Schedule 1 of SARA, have preferred habitat within the vicinity of the proposed pipeline route: common nighthawk, Canada warbler, olive-sided flycatcher, western toad and wood bison. Short-eared owl, listed on Schedule 2 of SARA, also has potential habitat within the proposed pipeline vicinity. No Schedule 1 listed species or their sign were observed along the proposed route during the 2010 wildlife survey.

Human Occupancy and Use

- Eleven landowners own property along the proposed right of way. Nine residences lie within 1 km of the proposed right of way, with the closest residence situated approximately 250 m southwest of the proposed right of way.

- The dominant land use is agriculture, primarily consisting of grain and livestock operations. The proposed pipeline is located within one Registered Trapping Area. Hunting, fishing and snowmobiling are the main recreational activities.

Heritage Resources

- An Archaeological Impact Assessment (AIA) identified one site within the proposed Project area.

- The BC Ministry of Tourism, Culture and the Arts, Heritage Branch provided a Site Alteration Permit to Provident on 3 March 2011.

Current Traditional Land-Use

- The Project would traverse approximately 2 km of Crown land (surrounding the Beatton River) within an area of overlapping aboriginal traditional territory interests.

- Provident identified ten Aboriginal communities with potential traditional territory in the Project area. They are: Blueberry River First Nation, Doig River First Nation, Halfway River First Nation, Kelly Lake Cree Nation, Kelly Lake First Nation, Kelly Lake Métis Settlement Society, North East Métis Association, Salteau First Nations, West Moberly First Nation and McLeod Lake Indian Band.

6.0 COMMENTS FROM THE PUBLIC

6.1 Project-Related Issues Raised in Comments Received by the NEB

Submissions from the public, landowner associations and government departments were received by the Board. Submissions that relate directly to the Project, and as such are covered by the CEA Act, are included in the following table and have been assessed in this ESR. Submissions that relate to all relevant matters covered by the NEB Act, including the O&M work, are assessed in the Reasons for Decision for this matter.

Issues:	Project-Related Comments:	Section of ESR where issue is assessed:
Weed Control	• Kevin Olmstead • Ken Siemens • NPLC[1] • Franz Wenger • Maya Wenger • CAEPLA[2]	8.1, 8.2, 8.5
Soil Management and Reclamation	• Kevin Olmstead • CAEPLA • Franz Wenger	8.1, 8.2
Crop Loss/Damage	• Kevin Olmstead • CAEPLA	8.1
Slope Reclamation (view, recreation use)	Ken Siemens	8.1, 8.2, 8.5
• Water source Protection • Wet Soil Shutdown • Shelterbelt Restoration • Property Damage by Vehicles	CAEPLA	8.1, 8.2
• Species at Risk • Migratory Birds • Wetlands • Vegetation	Environment Canada	8.1, 8.2, 8.5

1 North Peace Landowner Committee
2 Canadian Association of Energy and Pipeline Landowner Associations

6.2 Comments Received by the NEB on the Draft EA Report

Following the release of the draft ESR, comments were received from affected landowners and Provident.

Appendix 1 provides a summary of the comments, none of which resulted in wording changes to the ESR. Explanations have been included for comments that did not result in changes to the ESR.

7.0 THE NEB'S ENVIRONMENTAL ASSESSMENT METHODOLOGY

In assessing the environmental effects of the Project, the NEB used an issue-based approach. In its analysis within Section 8.1, the NEB identified interactions expected to occur between the proposed Project activities and the surrounding environmental elements. Also included was a consideration of potential accidents and malfunctions that may occur due to the Project and any change to the Project that the environment may cause. If there were no expected element/Project interactions then no further examination was deemed necessary. Similarly, no further examination was deemed necessary for interactions that would result in positive or neutral potential effects. In circumstances where the potential effect was unknown, it was categorized as a potential adverse environmental effect.

Section 8.2 provides an analysis for all potential adverse environmental effects that are normally resolved through the use of standard design or mitigation measures.

Section 8.3 addresses cumulative effects, Section 8.4 addresses follow-up programs and Section 8.5 lists recommendations for any subsequent regulatory approval of the Project.

8.0 ENVIRONMENTAL EFFECTS ANALYSIS

8.1 Project - Environment Interactions

	Environmental Element	Description of Interaction (How, When, Where, or Why No Interaction is Expected)	Potential Adverse Environmental Effect	Standard Mitigation to be Implemented
Bio-Physical	Physical Environment – Terrain	Clearing /mowing, strippings salvage and replacement on moderate to steep slopes Slope reclamation and restoration Trench excavation and backfilling	Surface erosion Terrain instability on moderate to steep slopes Fill material instability on long gentle slopes	Section 8.2[1]
	Soil and Soil Productivity	Strippings salvage and replacement, grading, trench excavation and backfilling Construction during wet soil conditions Pulverization of soils by heavy equipment Use of construction equipment and vehicles during construction and operation Seed mix selection and equipment cleaning	Lowering of soil capability through topsoil/subsoil admixing Degradation of soil structure through compaction and rutting Loss of topsoil due to wind and water erosion Surface soil slumping due to trench subsidence Loss of soil productivity due to contamination and the introduction of club root disease	Section 8.2
	Vegetation	Clearing and grading of pasture land, native vegetation at watercourse and wetland crossings, remnant bush and forested areas within the RoW and	Loss or alteration of native vegetation, rare plants, riparian areas, and forested areas Alteration of wildlife habitat	Section 8.2

	Environmental Element	Description of Interaction (How, When, Where, or Why No Interaction is Expected)	Potential Adverse Environmental Effect	Standard Mitigation to be Implemented
		TWS during construction Grubbing of root systems and topsoil salvage, storage, and replacement during construction; seed mix selection and equipment cleaning Use of construction equipment and vehicles during construction and operation	Introduction and spread of non-native invasive species Removal of windbreaks or shelterbelts Disturbance to vegetation due to spills or product releases	
	Water Quality and Quantity	RoW clearing, stripping, grading, excavation and backfilling activities Release of drilling fluids into watercourse during crossing activity Installation of erosion control structures Preparatory stream bed, bank work and stream bed trenching during construction Failure of isolated contingency technique during excavation of watercourse crossing Release of hydrostatic test waters directly into watercourse Use of construction vehicles and equipment	Alteration of surficial natural drainage patterns Disruption of subsurface hydrologic flow and reduction of ground water quality and quantity Disruption to water well flows Deposition of sediments and entrainment of fines into the stream bed Introduction of contaminants and other deleterious substances Sediments entering the watercourse and erosion of disturbed areas adjacent to water bodies Deterioration of aquatic ecological integrity (fish bearing and non-fish bearing) and loss of fish habitat (see Fish and Fish Habitat) Decreased surface water quality, soil quality, alteration of loss of riparian vegetation	Y[2]
	Fish and Fish Habitat	Clearing, stripping, grading, excavation and backfilling at the watercourse crossing Release of drilling fluids into watercourse during crossing activity Pipeline installation and access during construction Stress and injury to fish during fish salvage prior to instream trench excavation Failure of bank restoration efforts Use of large volumes of water for hydrostatic testing of pipeline	Fish mortality (direct or indirect) and the alteration, disruption or destruction of fish and riparian habitat Deposition of sediment and entrainment of fines into the stream bed and water column Introduction of contaminants and other deleterious substances Temporary blockage of fish movement and riparian habitat during construction and operation	Y

	Environmental Element	Description of Interaction (How, When, Where, or Why No Interaction is Expected)	Potential Adverse Environmental Effect	Standard Mitigation to be Implemented
	Wetlands	Clearing, grading, excavation and backfilling within proximity of wetlands Use of equipment and vehicles during construction and operation	Disturbance to surface water and subsurface hydrologic flow Alteration of wetland habitat	Y
	Wildlife and Wildlife Habitat	Removal of shrubs and trees during clearing of RoW and TWS Grading, trench excavation and pipe stringing Increased noise levels from construction and operational activities along the RoW Use of construction equipment and vehicles during construction and operation Increased vehicular traffic to project area Worker interaction with wildlife Waste generated during construction activity Long term operational control and management of vegetation along the RoW	Loss or alteration of wildlife habitat Reduction of habitat availability Alteration of wildlife movement Disturbance of migratory bird nests and nestlings Sensory disturbance to wildlife Displacement of wildlife Wildlife conflicts and mortality Habituation of wildlife to construction waste	Section 8.2
	Species at Risk pursuant to Schedule 1 of SARA	Construction activities associated with clearing, grading, excavation, installation and backfilling	Loss or reduced habitat, stress, reduced reproductive success with concomitant population declines	Y
	Species of Special Status	Construction activities associated with clearing, grading, excavation, installation and backfilling	Loss or reduced reproductive habitat, reproductive success with concomitant population declines	Y
	Air Quality	Use of construction equipment and vehicles during construction activities Dust raised by vehicles and equipment travelling on gravel roads and RoW	Temporary decrease in local air quality Temporary reduction in local visibility from dust	Y

	Environmental Element	Description of Interaction (How, When, Where, or Why No Interaction is Expected)	Potential Adverse Environmental Effect	Standard Mitigation to be Implemented
Socio-Economic	Human Occupancy/ Resource Use	Construction activities on privately owned land Construction activities near residences Construction activities on Crown lands Pipeline operation on privately owned land.	Sensory disturbance of nearby residents during construction Disturbance to use and enjoyment of Beatton River valley recreation area Disruption of farming operations during construction (for example, if length of open trench not restricted) Disruption of livestock operations during construction Disruption of hunting/trapping/fishing activities during construction If construction occurs during wet soil conditions, loss of soil's agricultural capability Loss of quality of groundwater sources used for human consumption Disruption of farming operations during pipeline operation if depth of cover not adequate to support farm machinery and modern farming practices Damage to property and injury to human health if pipeline and operation specifications are not designed to minimize risk of rupture	Section 8.2
	Heritage Resources	Strippings salvage and trench excavation during construction	Disturbance and/or destruction of heritage resources	Y
	Current Traditional Land and Resource Use	No interaction expected.	None expected. First Nations have not identified any current traditional land and resource use in the project area	Y
	Socio and Cultural Well-being	An influx of up to 50 temporary workers for a period of four to eight weeks during construction	None expected. Infrastructure and services at Fort St John and Taylor are sufficient to readily absorb 50 temporary workers	Y
	Human Health/ Aesthetics	No interaction expected	Due to the limited scope and short duration of the proposed project only nuisance related health effects are anticipated	Y

	Environmental Element	Description of Interaction (How, When, Where, or Why No Interaction is Expected)	Potential Adverse Environmental Effect	Standard Mitigation to be Implemented
Other	Accidents/ Malfunctions	Spill or leak from damage and rupture to the pipeline during construction and operation Spills from equipment and vehicle use during construction and operation Failure of proposed watercourse crossing methods Equipment travel at overhead-line crossings Transportation to and from the work site	Contamination of soils, water and vegetation Fire during construction and operation Injury to workers, residents, livestock and wildlife Damage to foreign utilities during construction and operation	Y
	Effects of the Environment on the Project	Severe weather conditions such as precipitation, winds, blizzards and thunderstorms could cause flooding, erosion, trench wall slumping and unstable ground conditions	Construction delays that could carryover into Restricted Activity Periods Damage to infrastructure	Y

1 In addition to standard mitigation measures described in Provident's EPP, refer to Section 8.2 for additional information on mitigation measures to address potential adverse environmental effects.
2 Refer to Provident's EPP for information in respect to standard mitigation measures to be implemented.

8.2 Potential Adverse Environmental Effects

In its application and EPP, Provident identified routine design and best practice measures to mitigate all the potential adverse environmental effects that were categorized in Section 8.1.

The following table provides additional information on the potential adverse environmental effects and associated routine mitigation measures that were the subject of comments received by the NEB, for which the NEB required further information from the applicant, or which involve Provident's commitments to other federal and provincial departments or agencies.

Potential Adverse Environmental Effect	Proposed Standard Design or Mitigation Measures
Terrain instability and surface erosion on moderate to steep slopes Disturbance to use and enjoyment of Beatton River valley recreation area	• Minimize disturbance and clearing on moderate to steep slopes. • Install long-term slope protection measures that may include trench breakers, sub-drains, cross ditches, diversion berms. • Seed using native seed mix and include a cover crop to ensure early vegetation establishment. • Use slash rollback on steep slopes and existing trail intersections for erosion and access control. • Provident committed to utilizing geotechnical and environmental expertise during slope reclamation.

Potential Adverse Environmental Effect	Proposed Standard Design or Mitigation Measures

Loss of soil productivity	• Provident committed to having an Environmental Inspector with soils and soils issues experience onsite during construction in order to monitor wind and water erosion, wet/thawed soils, stony subsoils and poor color separation.
	• Provident committed to the following contingency and management plans in order to protect the soils from mixing during salvage operations and contamination:
	  • Spill Contingency Plan;
	  • Soil Erosion Contingency Measures;
	  • Soil Handling Contingency Measures;
	  • Wet/Thawed Soils Contingency Plan; and
	  • Traffic Control Management Plan.
	• To prevent introduction of club root, ensure all construction equipment arrives on the RoW in clean condition. Pressure wash/steam clean equipment and disinfect using 1-2% bleach solution if previously used in an area with known club root infestations.

Loss or alteration of native vegetation including rare plants	• Use techniques to ensure that the construction RoW width and TWS is kept to a minimum. • Follow site-specific mitigation plans prepared for the rare plant communities found during rare plant surveys conducted in 2010. • Allow natural re-vegetation where no erosion potential exists. • Narrowing construction RoW, boring underneath trees, or replanting using tree spade to minimize effects to shelterbelts and windbreaks. • Conduct post-construction monitoring to determine the status of unresolved environmental issues including re-vegetation, seeding and weed growth.
Introduction and spread of weeds and non-native invasive species	• Ensure all construction equipment arrives on the RoW in clean condition. • Establish weed cleaning stations at recommended locations to ensure equipment is cleaned prior to leaving the high weed abundance areas (7) identified during Weed Survey. • Implement the Weed Management Plan as part of post-construction monitoring to monitor weed growth during construction, operation and maintenance. • The project-specific EPP would be updated prior to construction to include the Weed Management Plan.
Sensory disturbance to wildlife and migratory bird nests and nestlings	• Schedule construction and cleanup activities to avoid the BC MOE critical windows for migratory songbirds (May 1 to July 31) in all areas of the Project and moose and elk (May 15 to July 15) within Crown lands in the Beatton River valley. • Schedule construction to avoid the sharp-tailed grouse breeding period (April 1 to May 31) in areas containing sharp-tailed grouse leks. • Retain or replant wildlife trees affected by construction or the installation of nest boxes where retention or replanting is not feasible. • Use slash rollback on steep slopes and existing trail intersections for access control.
Provident's EPP specifies further details on standard mitigation.	

The NEB is of the view that, based on the nature of this Project, the potential adverse environmental effects identified in Section 8.1 can be mitigated through the use of standard design or routine mitigation measures as outlined above and in Provident's application, EPP, related submissions and recommendations included in Section 8.5 of this report. Therefore, the NEB is of the view that, with the implementation of Provident's environmental protection procedures and mitigation measures and the NEB's recommendations, the potential adverse environmental effects of the Project are not likely to be significant.

8.3 Cumulative Effects Assessment

The NEB has considered the potential for cumulative environmental effects and determined that any adverse environmental effects that are likely to result from this Project in combination with other projects or activities that have been or will be carried out would be minor. Therefore, it is unlikely that there would be any significant cumulative environmental effects resulting from this Project.

8.4 Follow-Up Program

The Project and its associated activities are routine in nature. The potential adverse environmental effects of the Project are well understood based on past projects of a similar nature in a similar environment. For these reasons, the NEB is of the view that a follow-up program would not be appropriate for this Project.

8.5 Recommendations

It is recommended that in any Order that the NEB may grant, a condition be included requiring Provident to carry out all of the environmental protection and mitigation measures outlined in its application and subsequent submissions.

Further, other recommendations include:

A. Provident shall file with the Board, at least 30 days prior to the commencement of construction, an updated project-specific EPP, which Provident shall implement. The EPP shall describe all environmental protection procedures, and mitigation and monitoring commitments, as set out in Provident's application, subsequent filings, or as agreed to during questioning or in submissions during the OH-2-2011 proceeding. Construction shall not commence until Provident has received approval of its EPP from the Board.

The EPP shall address, but is not limited to, the following elements:

a) environmental procedures including site-specific plans, criteria for implementation of these procedures, mitigation measures and monitoring applicable to all Project phases, and activities;

b) a reclamation plan which includes a description of the condition to which the applicant intends to reclaim and maintain the right-of-way and

temporary workspace once the construction has been completed, and a description of measureable goals for reclamation; and

c) evidence of consultation with relevant regulatory authorities on the proposed mitigation and any outstanding concerns and plans to address these.

B. Provident shall file with the Board, at least 30 days prior to the commencement of construction, the results of the supplemental wildlife survey, rare plant survey, and Archaeological Impact Assessment scheduled for summer 2011. Provident will include site-specific mitigation measures to be implemented within these reports and will update and re-issue the EPP and Environmental Alignment Sheets in order to ensure the protection of wildlife, rare plants and archaeological resources.

C. Provident shall file with the Board for approval, at least 30 days prior to commencement of construction, a detailed weed management plan. This plan shall describe Provident's immediate and long term weed monitoring and control procedure, decision criteria and accountabilities for the construction and operations phase of the Project as well as for the immediate post-construction reclamation period. The filed plan shall include evidence that it was designed in consultation with affected landowners, taking into account the unique circumstances of affected landowners.

D. In the event that any heritage resources are discovered during construction, Provident shall:

a) cease construction;

b) obtain the necessary clearances from the appropriate provincial authorities; and

c) notify the Board once permission to continue has been obtained.

E. In the event Provident cannot avoid construction or clearing activities within restricted activity periods for non-migratory birds protected under provincial legislation, and all migratory birds (May 1 to July 31), Provident shall retain a qualified avian biologist to carry out a pre-construction survey to identify any birds and active nests in areas immediately surrounding the Project site. Provident shall also file the following with the Board within 15 days following construction or clearing activities:

a) the results of the survey;

b) the proposed mitigation plan, including monitoring, developed in consultation with the appropriate federal (Environment Canada and the Canadian Wildlife Service) and provincial government authorities, to protect any identified migratory and non-migratory birds and their nests. This plan should include any birds protected under *Species at Risk Act*; and

c) confirmation that the appropriate provincial and federal government authorities were consulted on: (i) the proposed methodology for the survey; (ii) the results from the survey; and (iii) the mitigation and monitoring plans developed, and a description of how any outstanding concerns raised by these authorities will be resolved.

F. Provident shall:

a) notify the Board in writing of any change from the proposed HDD watercourse crossing method and the reasons for that change, prior to implementation;

b) provide copies of all correspondence from the appropriate regulatory authorities relating to the changed crossing method; and

c) file for approval, at least 10 days prior to implementing the changed watercourse crossing method, a description of amended reclamation and re-vegetation measures and fish and fish habitat monitoring for the affected watercourse crossings.

G. Provident shall file, within 60 days of the commencement of operation of the pipeline, a report that summarizes:

a) the location of trench breakers, drainage and erosion control measures; and

b) all of the slope stabilization techniques implemented.

H. On or before the 31 of January of each of the first, third and fifth growing seasons following the completion of right-of-way reclamation and final clean-up activities for the Project, Provident shall file with the Board a Post-Construction Environmental Monitoring Report that:

a) describes the methodology used for monitoring, the criteria used for evaluating success and the results found;

b) assesses the effectiveness of the mitigation measures applied during construction against the criteria for success;

c) identifies any deviations from plans and alternate mitigation applied as approved by the Board;

d) identifies locations on a map or diagram where corrective action was taken during construction and the current status of corrective actions;

e) provides proposed measures and the schedule Provident shall implement to address any unresolved concerns.

9.0 THE NEB'S CONCLUSION

The NEB is of the view that, with the implementation of Provident's environmental protection procedures and mitigation measures and the NEB's recommendations, the proposed Project is not likely to cause significant adverse environmental effects.

This represents a determination pursuant to paragraph 20(1)(a) of the CEA Act. This environmental screening report was approved by the NEB on the date specified on the cover page of this report under the heading CEA Act Determination Date.

10.0 NEB CONTACT

Anne-Marie Erickson
Secretary of the Board
National Energy Board
444 Seventh Avenue S.W.
Calgary, Alberta T2P 0X8
Telephone: 1-800-899-1265
Facsimile: 1-877-288-8803

APPENDIX 1: Comments Received by the NEB on the draft EA Report

Stakeholders	Comments	Provident's Response	Explanation on why change was not made to the ESR
Ken Siemens and Fern Mertens	Messrs. Siemens and Mertens requested copies of the reports outlining the results of the supplemental wildlife survey, rare plant survey, and Archaeological Impact Assessment specified in recommendation B. They also asked for the opportunity to accompany the field personnel collecting data for those surveys. Messrs. Siemens and Mertens requested notification of the locations of trench breakers, drainage and erosion control measures used for the purpose of slope stabilization on private and Crown land, as specified in recommendation G. Messrs. Siemens and Mertens requested that Provident and the NEB contact them in respect of any Project-related problems that may occur on their respective lands, in the future.	In Provident's response to the comments received, dated 17 June 2011, the company stated that the requests made by Messrs. Siemens and Mertens were reasonable and that Provident would fulfill them where possible. Specifically, Provident will: - provide hard copies of the reports and information requested; - invite Messrs. Siemens and Mertens to accompany the field work; and - notify Messrs. Siemens and Mertens of any problems on the pipeline RoW within their lands.	The Board considers Provident's response to Messrs. Siemens and Mertens dated 17 June 2011 to be a commitment made in the course of a Board proceeding. Should the Project be approved, the Board requires all commitments to be implemented. Specifically, in respect of the request for Messrs. Siemens and Mertens to be notified of any problems on the pipeline RoW within their respective lands, the Board notes that Provident has undertaken to ensure these landowners are notified of any unexpected issues beyond the normal regulatory requirements. Provident will also notify these landowners of any significant erosion conditions detected on their lands. The Board would, in any event, expect Provident to notify and consult with all landowners in the event of Project-related issues, in the normal course.